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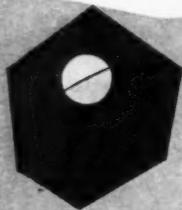
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Eat Freely of Meat—Fat and Lean—and Lose Weight

With this calorically unrestricted diet for obesity, the patient must follow a routine as important as the diet

JAMES M. NORTINGTON, M.D., *Editor*

An English ear surgeon—William Harvey—went to Paris in 1856 and attended the lectures of Claude Bernard. He was greatly impressed with Bernard's new theory that the liver secreted not only bile but also a peculiar substance, allied to starches and sugars, to which the name glucose had been given. Reflecting upon the then well-known fact that "a purely animal diet greatly assisted in checking the secretion of diabetic urine," it occurred to him that excessive obesity might be allied to diabetes as to its cause, and that if a pure animal diet were useful in the latter disease, a combination of animal food with such vegetable diet which contained neither sugar nor starch, might serve to arrest the undue formation of fat.

An extremely corpulent gentleman, in his 60's, consulted Harvey for deafness. Finding no organic disease of the ear, Harvey suspected the trouble arose from the pressure of fat on the Eustachian tubes, and he prescribed "a strict non-farinaceous and non-saccharine diet." Meats were allowed in amounts upward of 24 oz. a day. The patient, whose name was William Banting, lost 46 pounds in the course of a year while eating of the diet to the free satisfaction of his appetite. His hearing was restored, his general health was improved, and the many inconveniences of his extreme obesity were greatly lessened. Gratified at the relief obtained through the pleasant and easy treatment, he wrote and published a pamphlet,



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first in 1863. The pamphlet was circulated widely and the treatment was phenomenally successful. So originated our verb *bant* (to diet). Banting stuck to his "firm belief and conviction that the quality in food is the chief desideratum and that the question of quantity is mere moonshine." He maintained his weight loss without difficulty and lived to age 81.

Pennington¹ gives us this interesting background and against it presents a practical treatment of obesity for today. With this background of 20th century indoctrination on obesity, many physicians were amazed, in the year 1944 and thereabouts, to see demonstrated at clinical conferences in the New York City Hospital, cases of obesity that were being treated effectively by diets in which meat was allowed in amounts of 24 oz. and upward a day, and in which it was urged that $\frac{1}{4}$ this amount, by weight, should be fat, the patients eating meat, the lean and the fat, to the complete satisfaction of their appetites. This treatment was being used by Dr. Blake F. Donaldson.

ROUTINE AS IMPORTANT AS THE DIET

With this calorically unrestricted diet for obesity you follow a routine that is as important as the diet itself. Have a regular hour for going to bed, set your alarm clock for 8 hours sleep, and allow time for a 30 min. walk before breakfast. It is not necessary to walk fast. Set your own pace. Breakfast, lunch and dinner are all the same type—you eat three big meals a day: First course of each meal: One-half pound or more of fresh meat with the fat. You can eat as much as you want. The proper proportion is 3 parts of lean to one part fat, cooked weight. Most of the meat you buy is not fat enough,

so get extra beef kidney fat, slice and fry it to make up the proper proportion. The meat may be beef, lamb, mutton or pork — broiled, roasted or boiled. Hamburger is all right if ground just before it is cooked. Season the meat with black pepper before it is cooked or use other flavoring that does not contain salt.

Second course of each meal: This part of the diet is limited. Your choice of an ordinary portion of any one of the following: potato, boiled rice, half grapefruit, grapes, slice of melon, banana, pear, raspberries or blueberries. At the end of each meal have a cup of coffee or tea without sugar or saccharine.

Drink water as you wish, making sure to take 3 glasses full between breakfast and lunch and 3 more between lunch and dinner. Your only other beverage is the juice of half a lemon in a glass of water, if you desire it.

Note: This diet contains no bread, flour, sugar, salt or alcohol.

After the weight is normal you can test out how far you can depart from the diet without gaining weight.

The Banting dietary appears to have been, originally, one in which carbohydrates were well restricted but the total food intake was not restricted. Lacking a rationale, it became modified to fit current concepts; it underwent transformation into a low-calorie diet in which fat was greatly restricted.

Another, more recent, diet in which carbohydrate is restricted while the total calorie intake is not restricted is presented. The rationale for this treatment is indicated.

1. A.W. Pennington, M.D., Wilmington, Delaware, *Amer. Jl Dig. Dis.* 21:65, Mar., 1954.

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Cancer of the Lung-Diagnostic Facts and Fallacies

Delay in diagnosis is still the chief cause of the unnecessarily high death rate from this form of cancer

WILLIAM D. SEYBOLD, M.D., F.A.C.S., *University of Texas
Postgraduate School of Medicine, Houston, Texas*

Cancer of the lung now ranks in frequency only after cancer of the GI tract, the skin, and the prostate. So conservative an authority as Dr. Everts A. Graham recently has written that it kills seven times as many people now as it did in 1933—2,252 then, and about 16,600 in 1949. In spite of the fact that we are ignorant of the causes, and cannot explain its increasing incidence; in spite of the fact that it is one of the most serious forms of cancer that develops insidiously and grows rapidly, the death rate from cancer of the lung is unnecessarily high.

The high death rate is due in part to factors beyond our control but there are many factors within our

control, the most important being avoidance of delay in establishing the diagnosis. Usually there is an 8- to 12-month delay in the diagnosis from the onset of the symptoms. It has been estimated that 40% of this delay is due to the patient, 60% to the physician.

CAUSES OF DELAY IN DIAGNOSIS

Cancer of the lung has a "silent" phase of a number of months. One of the most important causes of delay in the diagnosis is the failure of the physician to suspect cancer of the lung in every patient with respiratory symptoms and signs in whom complete recovery is not prompt. A frequent error is in calling a cancer of the lung a "virus,"

or unresolved, pneumonia. Cancer commonly causes bronchial obstruction; secretions stagnate and become infected. The clinical picture presented by the patient is one of pneumonia with fever and exacerbation of the cough, perhaps dyspnea and pain in the chest. It is not enough that the symptoms disappear after the administration of antibiotics. Successive roentgenograms must show complete disappearance of the pulmonary lesion.

THE MASKING OF SYMPTOMS

Cancer can masquerade as pulmonary tuberculosis, as lung abscess, as the "Ghon" lesion, as a chronic unresolved pneumonia, as a neuritis of the shoulder and upper extremity, as a pleural effusion. The possibility that any of these clinical diagnoses based on symptoms and x-ray signs alone may be due to cancer must always be borne in mind. The absence of blood in the sputum of a patient with a pulmonary lesion should not allay our suspicions. All too often neither the patient with a chronic cough nor his physician becomes concerned until hemoptysis appears. Rarely is it the initial symptom, and only $\frac{1}{2}$ the patients with cancer of the lung ever expectorate blood.

Another important cause of delay in the diagnosis is our failure to recognize the inadequacies of certain diagnostic methods on which we have come to rely so implicitly. While x-ray examination of the chest is the most important single method of examination, the diagnosis of cancer of the lung can never be established nor excluded on the basis of the x-ray examination alone. We can usually determine the *presence* but not the *nature* of a lesion in the lung. A negative x-ray examination of the chest does not exclude the *possibility* of bronchogenic carcinoma. Cancer of the lung often begins as a lesion in a major

bronchus and, before obstruction to the bronchus has occurred, may cause cough and hemoptysis before it casts a shadow on the x-ray film. Chronic cough, with or without hemoptysis, demands a bronchoscopic examination even when the roentgenogram is negative.

The second procedure invaluable in the diagnosis is bronchoscopy. But two-thirds of these cancers begin in the periphery of the lung beyond the vision of the bronchoscopist. A diagnosis can be established by a bronchoscopic examination and biopsy in not over 35% of the proven cases. Failure, then, of the bronchoscopist to find a lesion in the bronchial tree does not exclude the possibility of cancer of the lung.

Another procedure which has been a real help in making the diagnosis of lung cancer is the examination of the sputum and the bronchial secretions for malignant cells. But since in 25 to 30% of the cases of proven cancer, examination of the sputum and bronchial secretions for malignant cells has been unproductive, failure of the pathologists to find these cells does not eliminate the possibility that such a lesion is a cancer.

DETAILED HISTORY ESSENTIAL TO DIAGNOSIS

How then are we going to go about establishing a diagnosis in a patient who has an abnormal shadow in the roentgenogram of his chest? A detailed history and a thorough physical examination should be the initial steps. If the patient is raising sputum some of this should be studied for the presence of acid-fast organisms, and, some sent to a pathologist experienced in the cytologic methods for examination for malignant cells. If these studies prove to be negative the patient should have a bronchoscopic examination. If a diagnosis of cancer is established by bronchoscopic biopsy



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the patient exploratory operation is in order for removal of the lesion. If the bronchoscopic examination is also negative, the next step is to *look and see* what the lesion is, *not to wait and see*. The lesion must be explored and biopsied or removed for frozen section examination and immediate diagnosis. This can be done at no greater risk than that of laparotomy. Exploratory thoracotomy is necessary for a diagnosis in one-third of the patients with resectable cancer of the lung. If we are to extend the benefits of surgical removal of the lesion to a larger number of patients with cancer of the lung, we must explore more of these indeterminate lesions in the lung.

THE PRESENT OUTLOOK FOR PATIENTS WITH CARCINOMA OF THE LUNG

This outlook is dismal, indeed, but it is not hopeless. If cancer can be discovered and removed by wide surgical excision while it is confined to the lung, the patient can be cured. The first pneumonectomy for carcinoma of the lung was performed by Dr. Everts A. Graham of St. Louis in 1933. This patient, a physician practising obstetrics in Pittsburgh, is alive, well and working after 20 years. Of 100 patients with cancer of the lung half have developed metastases outside of the lung and the chest cavity so that operation is not advisable at the time the diagnosis is made; in the other 50, exploration is carried out but in 40% of these the lesion is found to be inoperable when the chest is opened. At the present time the surgical mortality of pneumonectomy for cancer of the lung is 2.5 to 5%. Of those who survive the operation 20 to 25% will survive 5 years. Of the original 100 patients with cancer of the lung only 5 or 6 can be expected to survive 5 years.

Pneumonectomy with the thorough removal of the interbronchial and mediastinal lymph nodes is the

operation of choice in cancer of the lung. In those patients who are poor risks because of reduced cardiac or respiratory reserve or poor general condition, a lobectomy in preference to pneumonectomy may be done if the lesion is located well away from the root of the lung.

The physical capacity of the patient after pneumonectomy is satisfactory for a comfortable and productive life, provided there is no disease of the remaining lung.

PROMISING AVENUES FOR IMPROVEMENT IN EARLIER DIAGNOSIS

The solution to the problem awaits our understanding of the causes of cancer of the lung and our ability to prevent its development. However, we need not wait for that great day to improve the outlook for this group of patients. There are many tragic delays which are avoidable. The experiences with the use of mass survey techniques for x-ray examination of large groups of individuals give convincing evidence that such techniques are not only valuable in discovering pulmonary tuberculosis but also in discovering cancer of the lung in its "silent" phase. Several writers have proposed that the chest of every man 45 years and over should be x-rayed every six months or every year. We know that cancer of the lung occurs 6 to 8 times more frequently in men than in women, and, like most cancer, it is a disease of middle and later life. It is certain that every patient with pulmonary symptoms should have an x-ray examination of his chest if those symptoms do not clear completely and permanently in a very few days. Likewise, every patient with a proven pulmonary lesion should have a thorough investigation such as has been outlined in the previous paragraphs. We must pursue a policy of *look and see*, *not wait and see*.

SUMMARY

Cancer of the lung is now one of the most common types of visceral cancer. A few years ago it was considered a rare disease. The evidence suggests that the increasing frequency of the disease is real and not due simply to the increasing age of the population and to our greater accuracy in diagnosis.

Avoidable delays in diagnosis account too much for the morbidity and mortality of the disease. Each of the following factors contribute to the delay in correct diagnosis: absence of symptoms in the early stage of the disease, failure of the patient to heed minor respiratory symptoms, failure of the physician to suspect carcinoma of the lung in dealing with a patient who has pul-

monary symptoms, and finally, inadequacy of our present clinical diagnostic methods, such as x-ray examination of the chest, bronchoscopy, and cytology of bronchial secretions. The shortcomings of these methods need to be understood so that exploratory operation may not be delayed in a patient who has cancer of the lung which has defied our diagnostic efforts.

Surgical removal of a cancer of the lung is the only successful treatment. Many more lives could be saved if the diagnosis of cancer were established while the disease is confined to the lung. Our present methods, though incapable of saving all or even most of the victims of this disease, if faithfully pursued, would save many lives that are now being lost.

"Dislocations" of the Ankle

Many "sprained" ankles are in reality much more serious injuries—spontaneously reduced dislocations. Following a forcible inversion injury of the ankle, the lateral ligaments are often partially or completely torn, allowing the talus to dislocate from the ankle mortise without a fracture of any of the bones making up the joint. In all except rare cases following severe trauma, such a dislocation is reduced spontaneously by the pull of the peroneal muscles. The usual x-ray examination shows no fracture or deformity of the ankle joint and the diagnosis, by exclusion, is "sprained ankle."

Anteroposterior, lateral, and oblique x-rays of the injured ankle should be taken and studied. If no fracture is present, the integrity of the lateral ligaments of the ankle

should be determined by an anteroposterior x-ray taken while the ankle is forcibly inverted in the direction of the injury.

The ankle is inverted in the direction of the injury as determined by the history of the injury, correlated with the location of the swelling and point of maximal tenderness. If every detail is made in readiness before the actual twisting of the ankle, so that the examiner and technician work together as a team, the manipulation can be accomplished with a minimal amount of discomfort to the patient.

Immobilization in plaster should be used in recent dislocations; chronically unstable ankles subject to recurrent "sprains" may require surgical repair.

D.K. Millett et al. *Minn. Med.* 56:1135, 1953.

COUNT RED BLOOD CELLS

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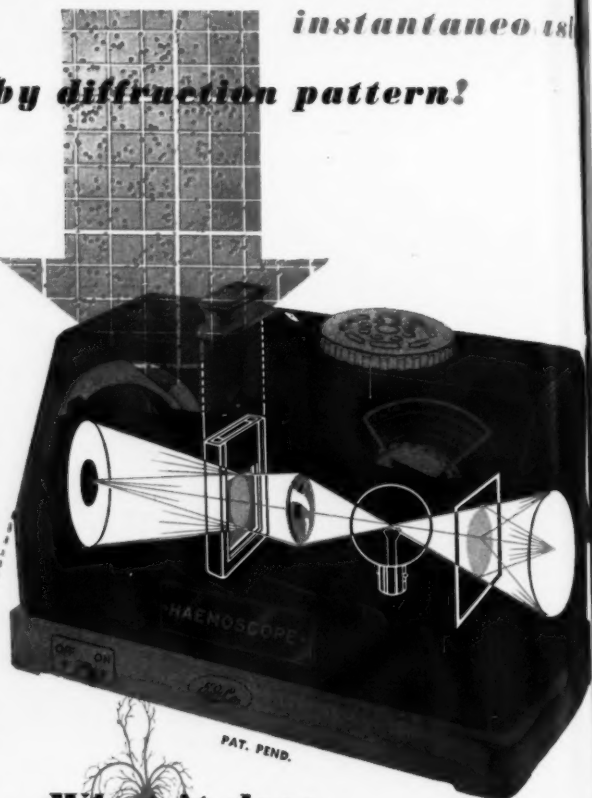
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Conservative Treatment of Deafness

*The author has experienced success
in the treatment of the hard-of-hearing
by utilization of vitamin A*

GEORGE R. LAUB, M.D., Columbia, S. C.

Total deafness is a rare affliction of mankind. A hearing loss or a hearing deficiency of lower or higher degree, is very common. A survey of school children in Illinois, revealed that 12.8% have a hearing loss. In South Carolina, a screening test showed 10,560 children so affected out of 180,803 tested, while in the United States as a whole 1.5% of all school children tested were found to have a hearing loss of more than 20 decibels.

This paper is restricted to the discussion of the use of vitamins and some of the newer drugs. We are especially interested in vitamins A and B complex. It has been found that young dogs fed a vitamin A deficient diet had degenerative changes of the acoustic

nerve. A failure to reverse these degenerative processes may be owing to inability of the body to utilize the vitamin A due to hepatic or glandular dysfunctions. In one series vitamin A-depleted animals did not show any reversal of their degenerative processes after being fed a diet rich in vitamin A. In another the exact opposite was found to be true.

Since there appears to be a difference in absorption and utilization of vitamin A in aqueous and oily form, preparations of each were used in this study. Lewis and Cohan demonstrated that aqueous vitamin A given orally was more rapidly and more completely absorbed and utilized than the usual oily forms of vitamin A,

producing up to 300% higher blood levels. Liver storage of aqueous vitamin A was twice that of the oily A, and loss of the vitamin through fecal excretion was considerably lower with the aqueous preparation. Higher blood vitamin A levels were found after IM injections of aqueous vitamin A as compared with ordinary oily vitamin A.

MIDDLE EAR INFECTIONS DUE TO VITAMIN DEFICIENCIES

Lack of vitamin B₁ and different factors of the B₂ complex produces a higher incidence of middle ear infections, no significant changes in the otic capsule or ossicular chain. Some degenerative changes are found, especially a demyelination of the cochlear nerve.

The value of some of our drugs in the treatment of hearing loss was discovered accidentally. When administered to hard-of-hearing patients for other ills, an improvement in hearing was noted. Later the same treatment was used for deafness and the results proved encouraging. Some cases in which such drugs were used are recorded briefly.

CASE REPORT:

Case 1: A 58-year-old woman whose father and a brother also had a history of hearing difficulties, for the last few years has been hard of hearing and has had minor dizzy spells, infrequent and not severe enough to interfere with her profession as a teacher. Her history is negative with exception of a slight thyroid deficiency, which cleared up after treatment with thyroid. The BMR at present is normal. Both the right and left ear have a loss of 46%. After one course of Amvitrol there was a gain of 3.5% in the right, and 8% in the left ear. Then after a second course, this time of Aquasol A Parenteral

she gained 13.5% in the right, and 15% in the left ear. A further course of Aquasol A resulted in a further gain of 13% in the right ear, and 1% in the left. The last hearing test showed a loss of 16% in the right ear, and 22% loss in the left, in comparison to a loss of 46% in each ear before treatment.

Case 2: A 59-year-old woman, complained of increasing deafness for many years. With exception of occasional acute upper-respiratory infections, always in good health. No family history of deafness. E.N.T. examination not remarkable. All physical and laboratory findings negative. Hearing test showed a typical conduction deafness with 25% loss in the right ear, and 43% loss in the left. After a course of 18 injections of Amvitrol loss was 19% in the right, and 26% in the left ear.

Case 3: A 56-year-old man, completely negative as to history and physical findings, had been getting hard-of-hearing for 5 years. He had a loss of 43.7% in his right ear, and 24.2% in his left. A course of Jacobson's solution cleared up a temporary acute infection. Anatola was then given, with a gain of 25.1% in his right ear, and 5.3% in his left. This was a case of typical perception type deafness.

A summary of the remaining cases appears in the tables, classified according to type of deafness. Otosclerosis was excluded from any of these treatments since it is believed these cases are best treated by surgery. The tables show only the gain or loss of hearing during the period of treatment.

The results demonstrate that each of the drugs employed: Aquasol A*, Amvitrol, Anatola and Jacobson's solution, caused some improvement in most cases. However,

*Aquasol A Parenteral supplied by U. S. Vitamin Corporation.

no explanation can be offered why much better results were achieved in some patients than in others.

METHOD OF TREATMENT

The method of treatment was as follows: either Aquasol A, Anatola or Amvitol was given in series of 18 injections each, e.o.d. Jacobson's solution was given daily for 12 days, starting with a dosage of .05cc. and increasing until the full dosage of 0.75cc., or in some cases 0.9cc was reached. The difference is made in the dosage according to the iodine tolerance of the patient. In some cases with thyroid difficulties, a lower dose was found advisable. At the end of each series, a hearing test was done. If improvement was satisfactory the treatment was continued, otherwise, a different drug was used or the treatment was discontinued. In some cases indurations develop at the injection sites; these can be mostly avoided by slow injections or by change of preparation.

TABLE I—COMBINED DEAFNESS

Sex	Age	Gain %	
		Right Ear	Left Ear
F.	61	23.7	9.0
F.	51	2.6	12.8
F.	36	*	13
F.	50	5.3	36.0
F.	39	6.5	14.0
F.	35	6.2	-1.6
F.	40	14.0	27.6
F.	36	-5.6	9.3
F.	19	-0.1	-1.6
F.	28	7.5	19.0
F.	45	0.2	16.8
F.	9	13.3	18.0
F.	65	10.0	5.0
F.	45	5.5	18.0
		6.50	11.4
		Average about 9%	

*—No hearing loss

TABLE II—CONDUCTION DEAFNESS

Sex	Age	Gain %	
		Right Ear	Left Ear
F.	21	11.9	15.1
F.	22	4.6	*
M.	9	*	4.6
F.	59	-6.0	17.0

*—No hearing loss

TABLE III—PERCEPTION DEAFNESS

Sex	Age	Gain %	
		Right Ear	Left Ear
M.	13	6.3	3.5
F.	12	36.5	46.3
F.	68	-6.0	6.0
M.	43	15.7	22.2
F.	62	No imp.	
F.	19	-1.0	19.0
F.	51	21.0	21.0
M.	43	No imp.	14.0
F.	34	18	100%
F.	25	19.2	18.0
F.	78	1.4	3.3
M.	48	-7.8	-4.4
M.	56	25.1	7.3
F.	60	0.6	-0.2
M.	11	10.9	3.7
F.	55	2.2	13.6
M.	39	1.0	5.0
M.	48	17.0	15.0

9.1 11.4
Average: 10.3%

The average gain with Amvitol amounted to 9.2%; Anatola 10.0%; Aquasol A 10.6% and Jacobson's Solution 12.1%. Another point should be stressed—that the percentages were arrived at by using only the figures at a sound of 500, 1000, 2000 and 4000 cycles. In a number of cases the results would look far better if the higher and lower tones would also be considered in the final analysis. Although these higher and lower tone figures are considered unimportant in the understanding of speech, I believe that in hearing the overtones and resonances the actual hearing is helped.



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The figures presented in our small series show a definite improvement in a number of cases — a result which can be compared with the ones by Lobel, Bau and Savitt and with a previous series published by the author.

The results with the aqueous vitamin A (Aquasol A) showed a slightly better therapeutic response as compared with the vitamin A in oil.

DISCUSSION:

In our armamentarium for the treatment of hard-of-hearing persons, we have a number of new methods. The merits of surgery and irradiation were not discussed—only the use of vitamin A (Aquasol A Parenteral, an aqueous solution of vitamin A; and Anatola, an oily preparation), vitamin B with aminoacids (Amvitrol and Hyvanol) and benzyl cinnamate (Jacobson's solution). We tried to establish an indication for each of these drugs without success. Jacobson's solution has

its place in cases of middle-ear deafness with inflammatory changes. If the treatment is successful after 6 weeks, it is continued; if it proves a failure, a preparation of the other vitamin group is used. No further treatment is attempted unless an increase in hearing of at least 6-8% is obtained after 6 weeks.

Since these patients are hopelessly deaf, doomed to entire dependence on speech reading or to a soundless world, severely handicapped in earning capacity and in social relations, a treatment which will stop a further deterioration of hearing must be accepted as a success. However, an increase in hearing of as little as 5 or as much as 25-30% is certainly of great value to the patient.

The author is convinced that treatment which will improve hearing of some of the persons with hearing loss, and which can prevent further deterioration in others, is to be considered as a valuable contribution to the well-being of the hard-of-hearing.

Cholelithiasis in the Elderly

A review of a total of 526 autopsies performed at the Vanderbilt University Hospital, 1947-1951, of patients over 40 years of age, revealed an incidence of cholelithiasis in 8.2%; many others report 20%.

The frequent lack of specific symptoms from cholelithiasis and early in the clinical course of malignant tumors of the G.I. tract is well recognized. On the basis of these figures cholelithiasis will co-exist with malignant tumors of the G.I. tract in 20% of patients with such tumors above the age of 40.

We have felt it wise to adopt a policy of routine complete G.I. examination in cases of vague abdominal symptoms in the older age groups. Conditions other than neoplastic ones may be discovered which are primarily responsible for the symptoms.

The fact that carcinoma of the colon was not demonstrated until laparotomy in the 2 patients here reported apparently did not adversely affect the outcome of the operative procedures performed.

W.R. Cate, Jr., *Jl Tenn. Med. Assn.* 47:102, 1954.

Examination and Interpretation of Knee Injuries

*The possibility of serious disability
resulting from injuries to the joint make examination
and diagnosis of prime importance*

JAMES J. CALLAHAN, M.D., JAMES E. SEGRAVES, M.D., Callahan
Clinic, Chicago, Illinois

The knee is the largest joint in the body which depends for stability upon the integrity of its surrounding ligaments and tendons, since the osseous structure of the joint itself does not contribute to the joint stability. These important structures include the quadriceps mechanism—the quadriceps tendon, the patella, and the patellar tendon—also the medial and lateral collateral ligaments. The cruciate ligaments, anterior and posterior, have been shown by recent study to be only contributing aids to joint stability.

The medial and external semilunar cartilages do not enter into the problem of joint stability except to the extent that their injury often causes a relaxation of the collateral ligaments, particularly the medial

one. This is not to imply, however, that injury to these structures does not give rise to serious disability, for in addition to the well known syndrome of localized pain, limited motion and locking, affections of the semilunar cartilages are important as an etiological factor in traumatic arthritis, osteo-chondritis desiccans and chronic synovitis. Because of these complications and the serious disability from injuries to the structures in and around the joint, the examination and diagnosis of the knee is of prime importance.

A careful history comes first, as to the mechanism of injury, the immediate effects, subsequent developments and the present after effects or disability. The examination is made with both legs exposed for

comparison, the patient lying flat on his back, relaxed, head resting on a pillow. The routine begins with inspection and follows through with systematic tests of function until all of the structures about the knee have been evaluated.

INSPECTION OF KNEES

Inspection of both knees will reveal any variations in the affected from the unaffected knee. A varus deformity in the extended position suggests a fracture of the medial condyle of the femur or the plateau of the tibia; a valgus deformity pathology in the lateral bony structures. Swelling suggests bursitis, synovitis or serous- or hemo-arthritis — it is important to know whether intra- or extra-articular. Manipulate the patella firmly against the condyles of the femur with one hand while tapping on the surface of the patella with the other. If ballotment is elicited, the fluid is intra-articular and effusion into the joint can be expected; if there is no fluid ballotment the fluid is extra-articular and a bursitis is usually to blame. Localized swellings may suggest a cyst of the medial semilunar cartilage, swelling in the back of the knee a Baker's cyst or aneurysm, or a lipoma — and here a careful study of the character of the swelling and its locations is necessary for differentiation. Atrophy of the thigh just above the knee — and this should always be measured — may be the first suggestion of internal derangement of the knee or injury to the quadriceps mechanism. A noticeable transverse cleft in the quadriceps mass just proximal to the superior border of the patella is further evidence of quadriceps injury. Displacement of the patella is easily interpreted.

Asking the patient to extend the leg with the knee in full extension

followed by the same maneuver against resistance afforded by placing the index fingers just above and just below the patella and exerting slight pressure. Attempts to extend the knee will immediately reveal whether or not the patellar tendon is functioning, the patella is intact and the quadriceps is contracting to its fullest extent.

With the knee extended there is normally little or no motion from side to side when an attempt is made to move the lower leg, with the thigh firmly immobilized between the examiner's hand and body. With the knee slightly flexed there is normally 10° of side-to-side motion. Motion with the knee extended and appreciably increased motion with the knee flexed slightly, indicates a tear or relaxation of the medial or lateral collateral ligament or both. The differentiation is made by analysis of the direction of motion, if increased laterally the medial ligament is weak and vice versa. There is usually swelling and marked tenderness over the injured area.

THE DRAWER TEST

Injuries to the anterior and posterior cruciate ligaments are readily detected by application of the drawer test. With the knee flexed to an angle of 90° and the foot planted firmly on the table, the leg is grasped firmly just below the knee with both hands and a to-and-fro force exerted. Normally there should be no displacement of the tibia on the femur and if such displacement is revealed, injury to the cruciate is indicated, anterior if forward and posterior if backward. If complete dislocation of the knee occurs following injury the deformity is obvious and the diagnosis can be established in most cases by inspection alone.

Injuries to the semilunar cartilages are common, and are often

overlooked. One cannot depend upon a history of locking to establish a diagnosis, since locking does not occur usually until dislocation of the cartilage develops — rarely at the time of the original injury, but resulting from repeated trauma to an already torn cartilage. The most dependable signs of dislocation or tear of the semilunar cartilages are tenderness over the joint on palpation, pain on flexion and extension of the knee, and a clicking noise within the knee joint as these movements are accomplished. This latter indicates involvement of the medial cartilage and a thud points to the external cartilage. The location of these sounds, whether at the beginning, the middle or the end of flexion, can sometimes be depended upon to locate the position of the tear whether anterior, median, or posterior.

McMURRAY TEST

The McMurray test is extremely diagnostic if performed correctly and interpreted accurately. With the patient in the supine position, one hand supporting the acutely-flexed knee and the other hand grasping the heel, the lower leg is forcibly externally rotated and gradually extended. A click is elicited when the torn portion of the cartilage is impinged between the tibia and femoral condyles, and if this click is accompanied by pain the test is considered to be positive for a tear of the medial cartilage. If the leg is internally rotated in this test, the lateral cartilage is affected. The more extended the knee is when the click occurs the more anterior the tear. The Apley test is a modification of the McMurray. The patient prone on the table and with the knee flexed to 70°, the lower leg is rotated internally and externally with

the joint distracted and then compressed. Pain in distraction indicates a ligamentous injury and in compression a cartilaginous injury, the medial cartilage being involved on external rotation and vice versa. The close relationship of the posterior cruciate ligament and the lateral semilunar cartilage must be kept in mind in any examination of the knee joint, and before surgical measures are attempted, every effort should be made to be sure that the posterior cruciate is not the cause of the trouble, since removal of the lateral cartilage will not correct the difficulty.

Examination of the back of the knee is made with the patient prone. Extension of the flexed leg against resistance will usually tell the examiner all he needs to know about the ligamentous structures in this area since they are all taut and easily palpable. The presence of a Baker's cyst, aneurysms, tumors, all can be felt and differentiated by the usual methods.

X-RAY DIAGNOSIS

Finally x-rays of the knee should be made in order to rule out loose bodies, arthritis or fractures. Narrowing of the joint spaces is not diagnostic. X-rays are largely of negative value and the diagnosis of internal derangements of the knee by x-ray is a hazardous pitfall. The injection of air and other radio-opaque media into the joint for diagnostic purposes is advocated by some, but should not be depended upon unless some one expert in the interpretation of such films is available. In extremely difficult cases, examination under anesthesia eliminates any voluntary muscle spasm and gives greater relaxation of the supporting ligaments of the joint.

Cortisone vs. Salicylate in Rheumatoid Arthritis

Latest clinical report proves cortisone no better than aspirin in the treatment of rheumatoid arthritis.

On May 29th, 1954, the Joint Committee of the Medical Research Council and Nuffield Foundation published a most significant finding on arthritis therapy—that "for practical purposes" there appears "surprisingly little to choose between cortisone and aspirin."¹

"Sixty-one patients in the early stages of rheumatoid arthritis . . . have been allocated at random to treatment with one or other agent (cortisone 30 cases, aspirin 31 cases) . . .

"Observations made one week, eight weeks, thirteen weeks, and approximately one year after the start of treatment reveal that the two groups have run a closely parallel course in nearly all the recorded characteristics . . . joint tenderness, range of movement in the wrist, strength of grip, tests of dexterity of hand and foot, and clinical judgments of the activity of the disease and of the patient's functional capacity."¹

These findings spotlight an earlier report that "aspirin in large doses has definite beneficial results closely akin to those received from ACTH."²

High gastric intolerance to aspirin noted among arthritics—a problem easily met by the use of BUFFERIN.

In this latest study, side-effects for both groups "were equal in the early months of treatment, but became less in the aspirin group as time passed."¹

Of clinical significance, however, is the high percentage of gastric intolerance to straight aspirin found among the arthritic patients—42% as against 3 to 10% variously reported for the general population.^{3, 4}

Earlier investigations reveal the disadvantages of using sodium bicarbonate with aspirin—namely, the lowering of blood salicylate levels and the possible retention of the sodium ion.²

BUFFERIN offers an answer to this problem.

Unlike straight aspirin, BUFFERIN is well tolerated, even in large doses.⁴

BUFFERIN contains no sodium. It combines aspirin with two antacid and buffering agents which protect the gastric mucosa against irritation from salicylates—at the same time providing faster absorption of salicylates into the blood stream.

1. Brit. M. J. 1:1223 (May 29) 1954. 2. M. Times 81:41 (Jan.) 1953. 3. J. Am. Pharm. Assoc., Sc. Ed. 39:21, 1950. 4. Ind. Med. 20:480 (Oct.) 1951.

BUFFERIN® should be used for the long continued salicylate dosage required by **ARTHRITICS**

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- because BUFFERIN's antacids effectively prevent gastric irritation and speed the absorption of BUFFERIN's analgesic ingredient.
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DOES NOT UPSET THE STOMACH**

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General Practice Notes

The Family Doctor in Psychotherapy

This author believes that the family doctor possesses the natural equipment and training to do considerable psychotherapy

R. R. COLEMAN, M.D., Jamaica, New York

The family doctor is the one who should do the best psychotherapy. To my mind it includes non-verbal as well as verbal patient-physician relationships. It is largely an emotional rather than an intellectual experience. As its goal there is implied a mutual growing up process. All psychotherapy is not good. I use the term with the broadest connotation possible.

The bulk of psychotherapy must be administered by the family doctor. Organic changes in the brain can produce "functional" syndromes.

A 55-year-old woman was scheduled to receive electro-shock for what her psychiatrist felt was a typical involutional depression. At the request of the family, she was seen in consultation. A soft, blowing

aortic diastolic murmur was heard along the l. sternal border. A positive blood serologic and cerebrospinal fluid test for syphilis led to penicillin therapy, which arrested the progress of her disease.

A 43-year-old housewife was seen because of frequent atypical psychomotor and petit mal seizures which were obviously triggered by situations producing tension. She was unable to accept the fact that she was an epileptic. Electroencephalograms done almost yearly were negative. Medications did little toward reducing the frequency of her seizures. Once when her small son was reported injured she reacted with hysterical behavior for 12 hours and had memory loss for the entire incident. A psychiatrist at a medical



ELECTRON PHOTOMICROGRAPH

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Diplococcus pneumoniae (*Streptococcus pneumoniae*) is a Gram-positive organism commonly involved in

lobar—and bronchopneumonia • chronic bronchitis • mastoiditis
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center felt that her entire illness was hysterical in origin. As her family doctor I recognized over the years a changing pattern to her seizures and the relative unimportance of the emotional component and insisted that the EECGs be repeated and an air study done. After 9 years a localizing lesion turned up which at operation was a hemangioma of the temporal lobe. She is now cured of her epilepsy.

PELVIC EXAMINATION IS ESSENTIAL

Psychiatrists should still carry a stethoscope as one of the tools of their trade. An older psychiatrist once told me that he did a pelvic examination on every female patient. He was a G.P. before he became a psychiatrist. After the examination the patient would feel freer to discuss more intimate personal details in her life situation. When I mentioned this to a young psychiatrist, fresh out of training, he told me what a terrible thing this was to do from the Freudian analytic point of view, mentioning such terms as "castration complex" and "penis envy." The thorough physical examination constitutes one of the best non-verbal psychotherapeutic maneuvers we as family doctors have available to us. The patient must be made to feel that the physician is really interested in him as a person and not in the methodology or in any organ. Nothing is more stultifying than to approach the patient with a head-to-toe list of questions. If you will just let the patients talk, most of the time they will tell you what is wrong with them.

A 28-year-old man, for 4 years had spells of diarrhea alternating with constipation, abdominal pain and even on occasions passage of bright red blood. Repeated examinations by several physicians, including myself, were entirely negative. Examinations included x-ray studies of the G.I. tract, stool examinations

and sigmoidoscopy. At a medical center physical examinations were likewise negative. A psychiatric interview gave insight into the psychodynamics of his symptoms. Not a great deal of improvement resulted in his symptoms, but 2 years later he again had recurrent rectal bleeding and again this coincided with conflictual stress, and he dismissed this to himself again as "nerves" and delayed examination until his family prevailed upon him because of his weight loss. On examination he had an annular carcinoma of the rectum which fortunately was resectable.

RECOGNITION OF EMOTIONAL NEEDS

A psychiatrist finds many explanations in the emotional life, and an analyst can frequently construct the dynamics carefully and completely, yet overlook an important disease state. We need more doctors who can appreciate the patient's emotional needs as well as attend to all of his physical complaints. Only the family doctor can serve this function well.

A middle-aged school teacher with a long history of neurotic complaints developed nausea and vomiting. Her symptoms always had an emotional coloring, e.g., the school principal lived next door and if she happened to eat a meal while facing the window which overlooked his house, she would very promptly vomit. The same meal eaten in different surroundings was well tolerated. X-rays of the stomach were repeatedly negative — but in 6 months this patient was dead and an autopsy showed she had a scirrhous carcinoma of the stomach.

For every patient helped by formal psychoanalysis, thousands have been helped by family doctor psychotherapists. The family doctor had in general better leave alone analytic methods, suggestive hypotherapy and electro-shock therapy,

as he would not attempt to do a lobectomy or a craniotomy. It is his job, however, to learn which patients are likely to be benefited by them, much in the manner that he learns which patients should consider surgery for cancer of the lung.

Not all psychotherapy is verbal. If one is giving an innocuous substance at periodic intervals to make a certain type of patient return at a particular time, and if he utilizes the time for a psychotherapeutic approach, this may be legitimate. Many patients in this way are given a convenient exit for the symptoms which they could not accept by going to a doctor who simply talked to them.

A newly-wed woman was seen because of abdominal pain after eating a suspicious tomato salad; on the 2nd day a generalized convulsion and hypertension occurred. Because of tenderness in the r.l.q. with muscle spasm and leucocytosis, an appendectomy was performed; appendix normal. Postoperatively patient com-

plained bitterly of backaches and pains in the legs and was generally irritable. All examinations including urograms were negative. The patient was variously considered to be a spoiled and petted bride, a psychoneurotic, and a possible drug addict — until the urine was found to turn dark in sunlight and to give a positive test for porphobilinogen. It was then clear that all of her complaints were due to acute porphyria. A better history revealed that her mother died of a similar illness after several needless laparotomies.

Psychotherapy like most things, can be good, bad, or indifferent. The family doctor possesses the natural equipment, training, and station to do the bulk of psychotherapy. This he must recognize and adapt to the utmost of all of his natural skills. It is his responsibility to overcome the mass inferiority feelings which physicians at large have toward the emotional ills of the population.

Jl. S. C. Med. Assn. L:31, 1954.

Hubbard Tank Therapy Versus Hot Packs in Acute Poliomyelitis

Of the two methods utilized in treating acute poliomyelitis, I prefer the hydrotherapy method. As soon as the patient's temp. is normal for 24 h. and examination reveals no complicating factors, such as pneumonitis, skin pathology, respiratory or cardiac difficulty, hydrotherapy should be started. Patient should be put into the tank at least twice daily. Most patients will tolerate temp. of 100° for the first 2 or 3 days. If higher temp. are tried in

the early stages, we have noted dizziness, nausea, vertigo and blanching. It has also been noted that if temp. are dropped below 98° the patients begin to chill quickly, and pain and spasm in the affected muscles become exaggerated. After the 3rd or 4th day, when the patient is able to tolerate more heat, we gradually increase the heat until patient is able to tolerate 101 to 102° for 20 to 30 min.

H. V. Morelewicz, N.Y. State Jl of Med. 54:203, 1954.

CURRENT LITERATURE

The Diagnosis and Antibiotic Therapy of Subacute Bacterial Endocarditis

*If proper antibiotic therapy is selected,
and the dosage and duration of treatment adequate,
from 70% to 80% of patients will recover*

W. E. HERRELL, M.D., Lexington, Kentucky

Since most cases of subacute bacterial endocarditis are caused by *Strep. salivarius* or *Strep. mitis*, both of which are sensitive to penicillin, this is the antibiotic of choice in the treatment of most cases of endocarditis. Many strains of *Str. faecalis* are sufficiently sensitive for satisfactory clinical results when large doses of penicillin—a concentration of penicillin of 3.2 units per c.c. are employed. The microaerophilic strep. are reasonably sensitive to penicillin.

There is a real advantage in combining streptomycin with penicillin in cases caused by *Stre. salivarius* or *Stre. mitis*. This method has made a clinical cure in 2 weeks rather than 4 to 6 weeks as was required

when penicillin was used alone; also effective in the treatment of subacute bacterial endocarditis caused by *Stre. faecalis* if the combination in proper doses is continued over a prolonged period.

Two methods are available: (1) The desired daily amount of penicillin by IV drip, and streptomycin twice daily IM. In *Stre. salivarius* or *Stre. mitis* seldom more than 2,000,000 units of penicillin daily, and 1 gm. of streptomycin twice daily—continued for 2 weeks. *Stre. faecalis*—IV drip penicillin 5 to 10 million units. 1 gm. dihydrostreptomycin morning and evening for 2 weeks, IM, then 0.5 gm. twice daily for 4 to 6 weeks. (2) Simultaneous penicillin and streptomycin by means of

single IM injections: a single syringe 1,000,000 units of procaine penicillin and 1 gm. of dihydrostreptomycin every 12 hrs.—satisfactory in endocarditis owing to *Str. salivarius* or *Str. mitis*, not *Str. faecalis*.

A number of species of bacteria other than common strp. may produce subacute bacterial endocarditis. Select the proper antibiotic. Infections caused by *Hemophilus influenzae* or *H. parainfluenzae* should be treated with Terramycin or Aureomycin orally in combination with dihydrostreptomycin IM. In endocarditis due to *Brucella* most effective is Terramycin or Aureomycin with dihydrostreptomycin. Endocarditis produced by *N. gonorrhoeae*, *Micrococcus* or *Erysipelothrix* — adequate doses of penicillin should cure. Infections owing to *Histoplasma capsulatum* and various species of *Candida* — the use of even enormous amounts of antibiotics is not likely to be effective.

In some situations the proper antibiotic has been selected and the patient has been treated for an adequate length of time, but treatment fails. Too often, failure has been attributed to lack of effectiveness of the antibiotic. Many relapses are examples of reinfection. A patient apparently may be doing well, cultures of the blood may be sterile, and progress appears to be satisfactory; but suddenly the patient dies. Occasionally, no reason can be discovered; however, evidence may be found of myocarditis, even in the absence of bacteria from the blood stream or the cardiac valves. Another cause of failure during of what appears to be successful treatment is embolic processes or the rupture of a mycotic aneurysm. The embolic processes may be small, but, nevertheless, fatal. Still another is congestive heart failure when all seems to be going well. There is no way to prevent any of these several complications; they

can only be treated as they occur.

Another often misleading phenomenon is persistent or a newly developed febrile reaction. The offending organisms apparently have been eradicated, but the patient has fever. The doctor must decide whether he should continue therapy, increase the amount of antibiotic, or discontinue its administration. Penicillin, today, is relatively free of pyrogens; however, when enormous doses are used, enough pyrogens may be administered to produce drug fever. If repeated sterile cultures have been observed, yet the patient continues to experience chills or fever, discontinuance of therapy has often been followed by return of the t. to normal and recovery of the patient. If it is necessary to continue treatment after this, depot penicillin may be used. Antibiotics other than penicillin may, on rare occasions, be responsible for drug fever. Finally, fever may occasionally result from a reaction caused by pyrogens in the rubber tubing for IV therapy.

If a suitable antibiotic or combination of antibiotics is selected, and if the dose and duration of treatment are adequate, from 70 to 80% of patients with subacute bacterial endocarditis should recover. These patients have damaged heart valves, and activities must be limited to the extent of irreversible cardiac damage.

No patient who has recovered from bacterial endocarditis should have any operative procedure without prophylactic antibiotic therapy. This may consist of penicillin for a day or two before, and again after, the operation, or perhaps Aureomycin or Terramycin orally during this period. No patient with cardiac disease should undergo oral, colonic, rectal, or transurethral operative procedures without the benefit of prophylaxis with antibiotics.

Jl Ky State Med. Assn., 52:416, 1954.

The Care of the Menopausal Patient

Patients should be instructed to report symptoms and be made to realize the importance of regular examination at 6 month intervals

P. O. KLINGENSMITH, M.D., Philadelphia, Pennsylvania

The physician should be prepared to bring understanding to the individual needs of the patient. He has four general functions: the preparation of the patient, the relief of unpleasant symptoms, the treatment of local benign defects, and the early detection of cancer.

Physicians should emphasize the diminishing character of the normal menopause and encourage the patient to report deviations from this pattern. This is a good time to stress the benefit of periodic examination at 6-month intervals. Sympathetic explanation of the general reaction to be expected is in order.

Commonly too much is ascribed to the menopause. An unfortunate sequel has been the substitution of

hormonal therapy for accurate diagnosis. There is a special tendency to exaggerate the magnitude of simple problems and to exhibit increasing cancerphobia.

Heat flashes and sweats are so common that the absence should argue against the menopause. In their presence, a diagnosis of the menopause should be supported by demonstration of physical signs of ovarian deprivation. Even then many patients will accept a sympathetic explanation of the nature of the adjustment along with the true statement that hormonal therapy cushions the reaction at the expense of prolongation of the period of adaptation. Simple sedation may be of real service. For those patients

refractory to basic care, hormonal therapy may be considered after weighing its limitation and contraindications.

Conditions which contraindicate the use of estrogens, are breast adenosis, fibromyomas, previously diagnosed endometrial hyperplasia, and previously treated malignancy. If estrogen therapy is deemed necessary, oral administration is preferred. Patients need direction to keep the dose low, to take rest periods such as one week off after three weeks on, and to gradually discontinue the drug. Unless this advice is heeded, a form of habituation develops which persists long after normal readjustment should have occurred.

A third group of symptoms is the disturbing tendency to obesity. There may be loss of elasticity of skin with wrinkling, aggravated arthritic difficulties; there is need for dietary regulation and careful attention to the specific medical problem.

Contractures of the vaginal outlet may produce distressing dyspareunia. The nature of the difficulty should be sympathetically ex-

plained to the patient. She should be encouraged to continue with the natural dilating effect of coitus assisted by lubricants. The local use of estrogenic cream for several months is helpful in many cases.

The fourth and most important factor in the care of the menopausal patient is the early detection of cancer. Not long ago, the Committee for the Study of Pelvic Cancer in Philadelphia showed delay in the management of 2 out of every 3 patients coming to treatment for pelvic cancer. Failure on the part of the patient to report significant symptoms most commonly; of the doctor in 1 out of 4.

The patient must be instructed to report significant symptoms and she should be made to realize the importance of regular examination. In the menopausal patients, the intervals between examinations should be no longer than 6 months. Detailed questions should be directed to the breasts, pelvic structures, and GI tract. Examination should include all sites where cancer frequently occurs. Suspicion calls for action, not procrastination.

Penn. Med. JI, 57:426, 1954.

For Routine Proctosigmoidoscopy in Patients Past 44

Routine proctosigmoidoscopy was done on 806 hospital patients over the age of 44, with or without colon symptoms. The combined polyp and carcinoma incidence was found to be 10.2%.

A total 8.8% polyp incidence, as was found in this study, associated with a 9.7% polyp incidence in patients without colon symptoms reveals the unimportance of symptoms in relation to polyp presence. Since

polyps play such an important role in the development of colon carcinoma, as has been stressed by many doctors, we strongly urge the use of proctosigmoidoscopy as a part of the routine examination in patients over the age of 44. Such a practice serves not only as an early diagnostic aid, but as a prophylactic attack on carcinoma of the colon.

R. J. Wilkinson, M.D., et als, West Va. Med. JI, 50:174, 1954.

Bedwetting

*If no physical basis for enuresis is found,
the family should be investigated for sources of emotional
tension which might cause anxiety in the child*

J. V. WALLINGA, M.D., Minneapolis, Minnesota

Hypnosis has been frequently effective but the symptom tends to re-occur. Also, hypnosis of children often creates a strong dependence on the hypnotist which then becomes difficult to handle. Hypnosis was reported to be enjoyed so much by one child that he continued to wet in order to be repeatedly hypnotized.

Treatment with an electrical apparatus, which, when the circuit is completed by urine voided, activates an alarm and turns on a light in the patient's room, is not new. It was reported 50 years ago and three times since. In 1916 a similar apparatus was tried in England, but its use was discontinued because most children became accustomed to the bell before becoming conditioned against wetting the bed.

A sound approach to the treatment of a child with enuresis includes first a thorough inquiry into the child's attitude toward his problem, the parents' attitudes both toward the child and the enuresis, emotional tensions or disagreements between the parents which may cause anxiety in the child.

Examination should avoid traumatic diagnostic procedures like cystoscopy unless there is a specific indication. If no physical basis for the enuresis is found, the physician should go further into the family conflicts, as well as undesirable attitudes that the parents may be displaying towards the child and his bedwetting. The family requires help to realize the important role that such attitudes may be playing

in the problem, and other ways in which to look at the child and his difficulty may be suggested. Also, at this point, unpleasant or uncomfortable toilet facilities might well be remedied or improved upon.

Then, having gained the child's cooperation as far as possible, a simple program may be offered of voiding at bedtime and again later at night, generally when the parents retire. The child must be fully awakened when he arises during the night to void. If not awake, he may become conditioned actually to wet in bed during the night. Limiting fluids after dinner appears to be of some value, and may be a way of emphasizing a positive approach involving the child's cooperation. Simple reward from the parents for dry nights is helpful, including use of a chart with stars as a visible sign of achievement.

Parents must not show disappointment or anger when the child fails to stay dry. Dexedrine may be helpful if the child appears to be sleeping too soundly. The child should understand what is to be expected of the medicine. Finally, the parents must not expect quick success, should try this regimen for perhaps 6 months before becoming discouraged. Only after such a program for a sufficient length of time might an apparatus such as the electrical conditioning device be considered, and then only for the older child who seems to have a definite desire to be rid of his problem.

The problem of why humans are enuretic has not been solved; no other mammal, once past the stage of genuine infantile helplessness, wets itself during sleep.

Jour-Lancet, 74:183, 1954.

Chlorpromazine® in the Treatment of Acute Alcoholism

To 16 patients the drug was given in doses of 100 to 200 mg. IV, in 250 to 500 c.c. of glucose in either water or saline within a period of 30 min., and after 15 min. from the time of beginning most patients were asleep. Varying degrees of hypotension were observed but never to critical levels with the patient horizontal.

Many of our patients were chronic alcoholics, most of them have previously received either barbiturates, paraldehyde, or both. They comment "you are not nervous after you come out of it the way you are with paraldehyde."

The course of therapy was from 1 to 4 days.

Chlorpromazine is recognized as a

potent antiemetic. It has been used in the management of over 64 subjects with acute alcoholism, 21 with delirium tremens and the remainder with psychomotor agitation. It was found to be highly effective in controlling the acute mental and physical aberrations of these states, the drug inducing a sleeplike state from which the patient could be easily aroused to take required nourishment and fluids. The time required to recover from the excitatory phase does not seem to be influenced by the drug; however, it appears that it possesses definite advantages over the sedatives usually employed.

S. N. Albert, M.D., et als, *Med. An. D.C.* 23:245, 1954.

Cardiac Emergencies

Anticoagulant therapy has reduced the mortality of severe myocardial infarction by at least 50 per cent

DAVID WHEATLEY, M.A., M.D., London, England

The severe attack of myocardial infarction or coronary thrombosis immediately threatens the life of the patient and urgent measures in the home are necessary to prevent a fatal outcome. The first of these is to combat the severe degree of shock. Recently, attention has been focused on measures aimed at elevating the blood pressure, when it has fallen below the critical level of 100 systolic. Pressor amines have been used for this purpose and a decreased mortality was shown in severely shocked cases, following the use of Mephentermine, coincident with maintenance of a normal blood pressure. Others used noradrenaline to achieve the same result. Mephentermine is not available

in England, and noradrenaline requires an IV infusion, which would be difficult to administer, as an emergency measure in the patient's home. However, methyl-amphetamine (Methedrine) has been shown to be a powerful pressor agent which has been used with satisfactory results — administered half an ampule (15 mg.) IV and the other half IM, repeating 30 mg. IM at 6 hour intervals for as long as may be necessary.

Anticoagulant therapy has reduced the mortality of severe myocardial infarction by at least 50%. The objects are to prevent both the extension of the original thrombus, and possible subsequent embolic episodes. At the earliest possible moment, in the patient's home, IV he-

parin (15,000 units) must be used—at the same time 1,200 mg. of ethyl biscoumacetate (Tromexan) by mouth. As the action of the heparin wears off after some 8 hours, the anticoagulant effect is maintained by the Tromexan, which takes about the same time to exert maximum effect. As Tromexan is completely excreted after 24 hours phenylindanedione (Dindevan) — with a 48 hour action is more satisfactory for subsequent maintenance therapy. The latter drug has the advantages of a smoother and more even prothrombin depression, and of requiring prothrombin-time estimations only on alternate days. If facilities are available for the latter, there would seem to be no reason for admitting such cases to hospital. Recently I have been using a small bedside apparatus which gives an accurate reading in a few minutes.

In cases where there is consider-

able dyspnea and cyanosis, the difficulties of obtaining O₂ promptly in the home may necessitate the patient's removal to hospital, but against this must be weighed the patient's fitness to survive the journey to hospital. When O₂ is available it should always be administered via a B.L.B. mask, at a high pressure of 6-7 litres/minute.

Relief of pain: No morphia in patients with respiratory distress; of alternatives Pethidine is probably the most useful.

Pulmonary infection is a common complication. The sooner the better, combined penicillin (0.5 gram, 800,000 units) and sulphadimidine (1 gram) — both being given by mouth in 8 hour doses.

Associated cardiac failure will require appropriate treatment. Anemia may precipitate attacks of angina pectoris.

David Wheatley, M.D., *Proc. Royal Soc. of Med.* 47:327, 1954.

Carcinoma of the Cervix With Metastasis to the Tibia and Fibula

Carcinomas of the breast, prostate, thyroid and kidney tend to metastasize to bone. Carcinomas of the skin, oral cavity, esophagus, cervix, stomach and colon tend not to metastasize to bone.

Metastasis to bones below the elbows and knees is unusual. No cases of squamous cell carcinoma of the cervix with metastasis below the level of the knee was found in a complete review of the literature in the English language of a 3-year period prior to March, 1953.

A 56-year-old white woman was referred to the clinic because of a suspicious lesion of the cervix. Biopsy of tissue from the cervix revealed a grade 2, squamous-cell carcinoma. A complete course of radium and roentgen therapy was

given in an interval of about a month, and she was discharged. 4 months later patient was well except for some muscular pain in the left thigh and popliteal space. Pelvic x-rays noncontributory.

Patient returned again in 2½ months, complaining of a recent painful "snap" between the r. ankle and knee. X-rays taken the next day revealed osteolytic lesions involving the proximal third portion of both the right tibia and fibula, and rarefaction of the right ischium, with pathologic fractures. The patient was otherwise well.

Needle biopsy of the r. fibula revealed grade-3 squamous-cell carcinoma, metastatic from the cervix.

R. M. Ulery, et als, *Proc. Staff Meet. Mayo Clinic*, 29:9, 1954.

Topical Therapy of Disturbances of the Upper Respiratory Tract

The ideal preparation for the nasal mucosa should relieve "stuffiness" promptly for prolonged periods without toxicity

B. M. COHEN, M.D., AND ROBERT MENDELSON, M.D.,
Brooklyn, New York

Rhinitis which persists for 7 days frequently has complications, many due to streptococci, pneumococci, Hemophilus influenzae, etc., some to allergy. This study of the therapy of rhinitis and sinusitis was limited to such cases.

The ideal topical preparation for the nasal mucosa should relieve "stuffiness" promptly and for prolonged periods without toxicity. This shrinking of the nasal mucosa may further aid to drain sinuses by helping the ostia to remain open. The preparation chosen for this study contains phenylephrine hydrochloride in a concentration of 0.25% as the vasoconstrictor or decongestant agent, is widely used, powerful and safe. The antihistamine used in this

preparation is thonzylamine hydrochloride in a 1% solution, an agent found to provide prompt symptomatic relief in allergic rhinitis.

The clinical diagnosis was established after careful examination of each patient. The diagnosis of sinusitis was supported by evidence from transillumination or x-ray. Smears for eosinophiles were made whenever allergy was suspected. Routine bacteriological methods were used to identify the predominating organisms.

The patients were urged to take "plenty of fluids," but no other medication was given. When much exudate was present, it was aspirated upon each visit. The topical preparation being studied was used to shrink the mucosa so that more ade-

quate suction could be carried out. Cotton pledgets were soaked in the solution, inserted into the nose and allowed to remain in place for 3 to 5 min.

Technique of self administration of the drug was taught each patient or a parent. For the infants and young children, to instill drops the head was extended so that the chin and external auditory meatus were in a vertical plane, the head remaining in this position for 1 min. In all other cases, the preparation was introduced by spraying from a special squeeze bottle, into each nostril, with the patient sitting upright, patient then to sniff a few times. Infants under 2 years of age were given 1 to 3 drops in each nostril *t. i. d.*; children 2 to 15 years were given 1 to 2 sprays in each nostril, adults 2 to 3 sprays—*q. i. d.* When nostril obstruction interfered with feeding, the preparation was instilled 15 to 20 min. prior to feedings.

Treatment was prescribed for 3 to 14 days depending upon the condition. The patients were given the drug in a special plastic atomizer of the "squeeze bottle" type. Follow-up studies were made within one week after starting therapy and as frequently thereafter as indicated.

In 9 cases, age from 43 to 71 years, the initial diagnosis was atrophic rhinitis. As this is not primarily due to infection, it is of interest that cultures of beta hemolytic streptococci were obtained in 7 of the 9 cases, *H. influenza* in one of the 2 remaining cases. After topical use of this preparation beta hemolytic streptococci were cultured from only one of the 7 patients.

In 19 cases, age from 5 to 47 years, the initial diagnosis was allergic rhinitis. In 6 no pathogens were found on culture. One case had a superimposed infection due to *Pneumococcus*, type 7. Predominant or-

ganisms in the remaining cases — 7 hemolytic *Staphylococcus aureus*, 2 hemolytic *E. coli*, 2 *Pseudomonas aeruginosa*, 1 *Aerobacter aerogenes*. Some of these may have emerged as the result of overgrowth following previous use of other antibiotics and may have had little effect on the current symptoms or signs. In 4 of the 19 patients relief from symptoms and signs was good, even after the medication was stopped. In 2 there was no response. In 11 cases improvement was most notable while the medication was being given—a finding in accord with the allergic etiology in these cases. One of these patients developed "grippe" 3 days after the medication was started. In one there was a superimposed rhinitis with purulent drainage from which *Pneumococcus*, type 7, was cultured. This complication cleared up rapidly with the use of this preparation.

One patient with severe vasomotor rhinitis and nasal polyps experienced brief temporary relief while receiving the medication.

13 patients, age 5 months to 73 years, had either subacute or chronic rhinitis often with purulent discharge. A variety of possibly pathogenic organisms were cultured. The clinical response was good in 8, fair in 2, temporary in 2, and in 1 there was no response.

In 8 of the cases, age 10 to 69 years, acute or chronic sinusitis was the major problem. Again a variety of organisms, some questionably pathogenic. In 5 the clinical response was good, in 1 fair, and in 2 improvement was temporary.

Of all the patients who had these upper respiratory difficulties the clinical response was good in 52%; good only while drug was being administered in 32%; fair in 6%; in only 6% no improvement.

Laryngoscope, 63:1118, 1954.

Functional Uterine Bleeding

*Combined gonadal steroid therapy
administered over a period of 5 days usually
arrests bleeding within 48 hours*

R. B. GREENBLATT, M.D., Augusta, Georgia

The administration of a combination of 6 mg. of estrone or its equivalent (1.66 mg. estradiol benzoate), 25 mg. progesterone and 25 mg. testosterone, will take care of functional bleeding due to various causes in 95% of all cases. The combined gonadal steroid therapy administered over a period of 5 days usually results in arrest of bleeding within 6 to 48 h. Withdrawal bleeding that simulates a normal menstrual period (sometimes excessive during the first 2 days) will ensue in from 2 to 7 days after cessation of therapy. Although combined estrogen and progesterone therapy is satisfactory in most cases, the addition of testosterone seems to decrease the amount of withdrawal bleeding. Some 20

days later, a course of oral progesterone for buccal absorption (50 mg. per day for 5 days), or pregnenolone for ingestion (30 mg. per day for 5 days) or progesterone by IM injection (10 mg. daily for 3 days), may be administered to induce another withdrawal period. This progesterone therapy may be carried on at monthly intervals until it is established that cyclic ovulatory menses have begun to take place.

A second method of therapy is the use of intravenous estrone sulfate. This is of particular value in young girls and in those women in whom bleeding is copious. In such cases it is best to delay the withdrawal period for several weeks; use IV estrogen every 4 to 6 h. until bleed-

ing is arrested, then oral estrogens in decreasing doses over a period of 25 days, a withdrawal period will thus be delayed until the patient has had an opportunity to recover her balance.

Care must be exercised in the selection of patients, since moderately good, though temporary, results may also be obtained in patients with ectopic pregnancy and in cases of bleeding due to endometrial carcinoma. Dilatation and curettage should be performed in all those patients in whom there is the slightest suspicion of malignancy, in all pa-

tients approaching or beyond the menopause, and in those who fail to respond satisfactorily to a course of therapy. In young girls and in those women who have had a curettage or repeated curettage in the immediate past, it should not, as a rule, be necessary to perform this procedure.

Both methods yield a very high percentage of success.

Should failure be encountered with one method, as it occasionally is, one may resort to the other.

Med. An. D.C. 23:187, 1954.

Some Studies of Hormonal Influence on Wound Healing

It is seen from experimental studies with rabbits that cortisone retards wound healing.

When percorten and cortisone were given simultaneously, the retarding influence of cortisone was not as marked as when the latter was administered alone. Similarly, no noteworthy retardation occurred following ACTH administration. It is probable that ACTH stimulates all the known and unknown factors in the adrenal cortex, and consequently promotes percorten and cortisone production to an equal degree. The observations made in patients under clinical treatment are to a marked degree similar. In our patient wound healing following thoracoplasty was completely inhibited.

Experiments were carried out with rabbits for observation of the

influence of certain hormones on wound healing. The investigation was prompted by the complete absence of healing in a patient who had been under cortisone therapy. Of the preparations used in the animal experiments, cortisone was seen to have the most retarding effect on wound healing. This effect was less marked when cortisone and percorten were given simultaneously. ACTH in the doses given had only a slightly retarding effect on healing, and percorten and hyaluronidase enzyme did not appear to have any noteworthy effect on the healing process. Where wound healing was delayed, the histological examination seemed to indicate that this was due to retardation of the production of all mesenchymal cellular elements of repair.

O. Perasalo, et al., *An. Chir. et Gynaec. Fenniae*, 42:168, 1953.

CASE REPORT

Massachusetts General Hospital Case Record

Diagnoses given included syphilitic heart disease, rheumatic heart disease, coronary heart disease, and subacute bacterial endocarditis

FIRST ADMISSION. A 69-year-old salesman admitted because of diarrhea and vomiting; 6 h. before admission, while watching a bowling match, a non-radiating pain developed in the mid-epigastrium and l. anterior portion of the chest, associated with nausea and vomiting, and loose watery stools. About once a week for the past 10 years dull precordial pain had occurred after exertion or heavy meals; the pain radiated down the l. upper arm and was relieved by rest or aspirin. He is a well developed and well nourished man; pupils reacted to light and on accommodation, neck veins flat, chest clear; P.M.I. cardiac impulse in 5th intercostal space, 2.5 cm. to l. of midclav. l.; a loud grating, rough, Grade-2 to -3 ao. sys.

murmur transmitted to neck and over precordium; a Grade-2 to -3 aortic dias. blow heard best along the l. lower sternal border. The rhythm was regular. There was a Corrigan pulse; capillary pulsations were noted.

The t. was 103°, p. 90, r. 20, b.p. 130/40. Urine sp.gr. 1.018, and was normal except for the sediment, which contained 4 or 5 white cells and 3 or 4 granular casts per h.p. field. Blood—hgb. 15 gm., white cells 17,600 — 92% neutro. A blood Hinton test was positive. A stool gave a plus guaiac reaction. Stool culture was negative for pathogens. ECG showed nonspecific T-wave changes that did not vary on subsequent tracings. A chest roentgenogram disclosed clear lung fields and a heart

shadow of normal size and shape.

T. returned to normal in 12 h., and he remained asymptomatic thereafter; discharged on the 7th hospital day.

SECOND ADMISSION (2 weeks later). Admitted for penicillin therapy for syphilis. Cerebro-spinal-fluid findings normal, negative Hinton test. He was given 40,000 units of penicillin q. 3 h. for a total of 6,000,000 units and then discharged.

THIRD ADMISSION (3½ years later). In the interval he had been active and was able to climb stairs without excessive dyspnea, ankle edema or orthopnea. 18 h. before admission, while sitting listening to the radio, he noted a sudden severe pain in the anterior part of the chest that did not radiate and was not increased by respiration. The pain was steady and dull, with exacerbations every 1 or 2 h., and lasted 2 to 5 min. He was apprehensive and orthopneic but had no palpitations.

New positive physical findings included atrial fibrillation, 170 per min., and scattered moist rales at the lung bases. T. 99.2°, r. 24, b.p. 140/50 to 0.

Urine: sediment 2 or 3 white cells per h.p. field, otherwise normal. Hgb. 15 gm., white cells 10,200 with 84% neutro. Serum NPN. 34 mg., fasting b. sugar 88 mg. per 100 c.c. After 0.8 of Cedilanid had been given the cardiac rhythm reverted to normal, and the patient became asymptomatic. ECG similar to the one taken 3 years earlier. He was discharged to continue with digitoxin and salt restriction.

FOURTH ADMISSION (14 months later). He had continued to take digitoxin, 0.1 mg. daily; had been moderately dyspneic on exertion and had orthopnea requiring 2 pillows for relief but no ankle edema. 3 months before admission had onset of mild, gnawing epigastric pain with weakness. The pain, more or

less constant, was relieved temporarily by the taking of milk or soup and was unassociated with other GI symptoms. Weakness increased, weight fallen from 158 to 110. No fever, chills or sweats.

Patient emaciated and appeared chronically ill. A few small axillary lymph nodes. Lungs clear, heart has an easily palpable sys. apical thrill, a blowing, Grade-3 aortic sys. murmur and a harsher, Grade-3 sys. blow at the apex. A short, Grade-2 soft diminuendo dias. blow was heard in the r. 2nd interc. space; A2 equalled P2, rhythm regular. Corrigan pulses present.

T. 100.6°, p. 90, r. 22, b.p. 140/50 to 0. Urine 1,011, albumin, +, sed. loaded with red cells and 2 to 4 white cells, per h.p. field but no casts. Hgb. 9.8 gm.; whites 11,800—89% neutro.; reds small and hypochromic. Serum total protein 6.1 gm.—alb. 2.7, globulin 3.4—NPN 54 mg. and the serum iron 150 microgm. per 100 c.c. Bromsulfalein retention was 18% on admission and 5% 9 days later; cephalin flocculation 3-plus in 48 h. Guaiac test on a stool negative, urine culture grew out *Escherichia coli*. Film of chest revealed congestive changes and bilateral slight pleural effusion. A GI series showed 2 small, rounded filling defects in the body of the stomach.

During the four weeks before operation daily t. rose to 100° to 101° on 2 occasions. Four 500-c.c. blood transfusions were given, after which a gastrotomy was performed, with the removal of 2 benign polyps. The stomach was otherwise normal. Post-op. 1. 101°, white cells 16,500—97% neutro. Treated with crystacillin, 300,000 units twice a day for 7 days, with a fall of the t.; x-ray exam. disclosed clearing of a vague rounded density behind the heart in the post, costophrenic sulcus. Heart again small in the x-ray films. A sputum

culture grew out alpha-hemolytic streptococci, pneumococci and Haemophilus influenzae. He was discharged on digitoxin, a bland diet and crude liver extract on the 24th postoperative day.

FINAL ADMISSION (one month later). Had been up and about in the house and felt slightly better; 2 days before adm. a severe nose-bleed, which required packing. On the next day, while in bed, severe pain in the ant. part of chest, radiating down the l. arm. "After some time" he coughed up blood and the pain subsided; however, it returned 12 h. later, and he was admitted to the hospital. The pain was greatly relieved by nitroglycerin.

Patient was pale and wasted but in no acute distress. Neck veins flat, bilateral basal and axillary wet rales, heart believed to be enlarged, border extending to the midaxillary line, rhythm was regular, and A2 equaled P2. A harsh, Grade-2, sys. mur. heard at the base and apex, and a Grade-2 diast. along the sternal border, base and apex; no gallop. Liver edge palpated 1. in. below the r. costal margin, and there was 2-plus ankle edema.

T. 98.6°, p. 90, r. 24, b.p. 110/20 to 0. Urine 1.005, trace alb., sed. 50 white cells, 2 to 4 red cells and occasional casts per. h.p. field. Hgb. 6.5, white cells 10,100 — 68% neutro, 29% lymph. and 3% mono. Repeated stool guaiac tests neg. Bleeding time, clotting time and platelet count normal. Coombs test neg. Total protein 5.8 gm.—alb. 3.0, globulin 2.8—bilirubin 1.4 mg., NPN 52 mg. per 100 c.c. Bone-marrow aspiration showed normoblastic hyperplasia. ECG unchanged. X-ray of chest showed a soft, fluffy, symmetrical infiltrate in both perihilar areas.

Given 2 transfusions after 9 days, a bilateral ligation of the superficial femoral veins was done but no clots were found in the veins nor was

there any swelling of the legs. On the 13th day NPN was 92 mg. Five blood cultures in paired flasks were drawn with alphahemolytic strep. growing from a single flask and Staph. albus from another single flask. Urine cultures grew out abundant Esch. coli. He slowly became weaker and less responsive and was difficult to nourish. Highest white-cell count 12,000. T. curve from normal to 100°. Died on 23rd hospital day.

DIFFERENTIAL DIAGNOSIS

Dr. Walter Bauer: * Did the physicians interpret the cardiac findings as being manifestations of syphilis?

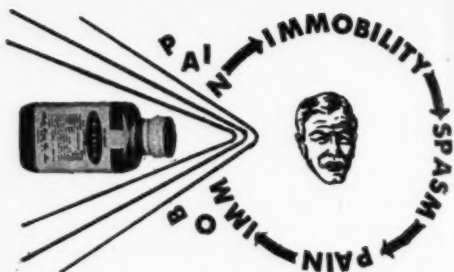
Dr. B. Castleman: The patient had a history of a penile sore 25 years before the first admission; at that time he was treated for gonorrhea. 2 years before the first adm. he had a positive blood Hinton test and was given 18 injections of bismuth. During the first adm. the blood Hinton test was positive, during the 2nd adm. the test had become negative.

Dr. B.: There was no indication that the aortic 2nd sound was louder than the pulmonic. At the first adm. this man had a history of angina for 10 years, evidence of aortic insufficiency and a positive blood Hinton test. During the 2nd adm. he was treated for syphilis; whether or not he was so treated because the physicians interpreted the findings as representing syphilitic heart disease is not indicated. I assume that one might argue that, in addition to syphilitic heart disease, this patient had symptomatic coronary-artery disease, thereby accounting for the angina on a nonsyphilitic basis. I wish to emphasize, however, that it is most unusual for a man with angina pectoris as a symptom of syphilitic heart disease to have no more trouble than this for 10 years.

The problem on the 3rd adm. was to explain the severe pain in the

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2



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3



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4



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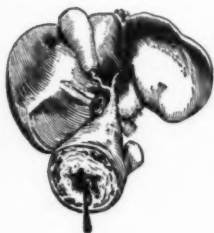
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anterior part of the chest that the patient experienced while sitting; there was no radiation to the l. arm as with the previous attacks of chest pain. I shall assume that, with the onset of fibrillation in this man with coronary-artery disease, pain ensued because of coronary insufficiency without myocardial infarction; however, the pain may have been due to pulmonary embolism. I think it likely that he had calcareous disease of the aortic valve at this time. The fibrillation and congestive heart failure responded to the treatment given, and evidently he remained well for quite some time.

ANEMIA NOT DUE TO BLOOD LOSS

At the time of the 4th adm. he obviously had something else besides the lesion that was treated surgically. The hgb. was only 9.8 gm.; yet the stools gave neg. guaiac tests, indicating that anemia was not due to blood loss. Other abnormalities noted included the urinary findings. It is fair to assume that this man was ill with some other disease throughout this hospital stay. Additional information favoring this in- of 101, and a white count of 16,000 terpretation is the postoperative t. with 92% neutr. With the administration of penicillin the fever disappeared, and there was clearing of the "vague rounded density" behind the heart in the posterior costophrenic angle. Whether or not the density was a pneumonitis, an acute lung abscess or a pulmonary embolus, I cannot establish.

On the last admission there was a history of a nosebleed while he was sitting in bed and a severe chest pain that radiated down the l. arm. The pain, I think, is explained best on the basis of coronary-artery disease. Upon coughing up blood he was relieved; however, pain returned 12 h. later and was relieved by nitroglycerin. I hesitate to make a diagnosis of pulmonary embolus

though I am well aware of this possibility. I prefer to attribute the pain to coronary insufficiency. On this occasion he had even more anemia than on the previous admission; yet the guaiac tests were again negative. This time the bilirubin was 1.4 mg. per 100 c.c.

I believe all these findings indicate the presence of calcific disease of the aortic valve—a diagnosis I prefer to syphilitic heart disease—and a superimposed subacute bacterial endocarditis, with focal nephritis and focal liver damage. Certainly, the renal and hepatic abnormalities observed would be in keeping with this diagnosis. Whether there was a pyelonephritis in addition I cannot say.

If this man had subacute bacterial endocarditis, what organism caused it? I think it was *Staph. aureus*, which might explain the "vague rounded density" posterior to the heart that disappeared with the administration of the penicillin. My diagnosis leaves unexplained the soft, fluffy infiltrate noted in the chest films during the last hospital stay. I believe that this was nothing more than edema due to congestive heart failure.

ABSENCE OF CARDIAC ENLARGEMENT

The thing that impressed me as I read this record was the absence of cardiac enlargement. Did the x-ray films show any elongation or widening of the lower portion of the aorta?

Dr. John F. Gibbons: On this film taken 5 years before the last admission, the heart is small, lungs moderately emphysematous. Films taken 1½ years later show no real change. In the films at the 3rd adm. the heart looks slightly larger than before, aorta has not changed in contour, and heart is certainly not much enlarged. The vague, rounded shadow behind the heart that was mentioned at the time of the 4th admission and disappeared after 48 h.

can be discounted, I think. The film is not a true lateral film, and I believe the radiologists were looking at thickened pleura on 2 sides of the bases of the lung and partly at the chest wall in a somewhat oblique film. In a true lateral film, taken 2 days later, that shadow has disappeared. At the time of the final adm., a month later, heart is still not very large, there is elevation of the l. main-stem bronchus that progressed as the heart became larger, suggesting enlargement of the l. atrium, which would go along with the enlargement of the other chambers. There was also a more or less solid density in the upper lobe on the r. side and a lesser degree of consolidation of the l. upper lobe. It is impossible to say how much is pneumonitis and how much is edema at the end.

SERVICE CLINICAL DIAGNOSIS

Syphilitic heart disease.
Rheumatic heart disease.

DR. WALTER BAUER'S DIAGNOSES

Calcareous aortic stenosis or bicuspid aortic valve, with superimposed subacute bacterial endocarditis.

Coronary-artery disease.

Focal nephritis and focal liver damage.

ANATOMICAL DIAGNOSES

Syphilitic aortitis, with aortic insufficiency.

Rheumatic heart disease, with mitral disease.

Subacute bacterial endocarditis, with rupture of aortic and mitral valves.

Hemorrhagic bronchopneumonia.

Central necrosis of liver.

Acute glomerulitis.

There was a severe hemorrhagic bronchopneumonia; blood throughout all the alveoli explains why the patient was spitting it up. There was no evidence of infarction or emboli anywhere. The liver had quite severe central necrosis, I think due to mild heart failure and the superimposed bacteremia. The collecting tubules of the kidneys contained some blood and the tufts showed mild but definite changes of a glomerulitis such as we sometimes see with bacterial endocarditis. There was no pyelonephritis.

What was the organism? The post-mortem blood cultures were negative. Under the microscope the organisms looked like streptococci. How do you suppose he acquired the subacute bacterial endocarditis? He may have had pneumonia on the 3rd admission.

New England JI of Med. 250:291, 1954.

ACTH and Cortisone in Rheumatoid Arthritis

There is no indication for the treatment of rheumatoid arthritis by the continuous administration of ACTH or cortisone. The use of short courses of either hormone, but preferably ACTH, may be justified in severe and progressive cases where

conservative measures have failed to control the disease process and where severe crippledom is likely.

The local use of hydrocortisone in the treatment of single joints is likely to be accepted.

J. J. R. Duthie, *Proc. Royal Soc. of Med.* (Lond.), May, 1954.

DRAMATIC IMPROVEMENT IN 94.29%

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1. De Lucia and Strosberg. Med. Times 82:1, p. 47. 1954.

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R. K. Nixon, Jr., M.D., *New Eng. JI of Med.*, Jan. 28, 1954.

Evidence of Gout

Gout occurs predominantly in males after puberty, much more rarely in females at or after the menopause. Intense pain is the hallmark of gout. The skin for some distance around the affected joint rapidly becomes shiny, of bright red or mauve colour, but remaining dry, and with distension of the neighbouring veins. Early attacks are usually confined to the mentatarso-phalangeal joints of the big toe but may later spread to almost any joint.

Such an attack, which may be brought on for the first time by local

injury or an operation, will lead to a diagnosis of gout without other evidence. When the attacks are atypical, or when treatment has been applied without relief, further evidence of the disease may be sought.

In this country 5 mg. per 100 ml. of blood is taken as the highest normal. The level varies from day to day and a normal figure may result from one estimation—more likely to occur during or immediately after an attack. One reason may be that during an attack many patients are given salicylates, which cause an increased urinary output of uric acid and so a lowered blood level.

The high level of uric acid in the blood has apparently no connexion with the attacks of gout. Uric acid injected either into a vein or into a joint will not produce an attack. Other causes of excess uric acid in blood are leukaemia, polycythaemia, lead-poisoning and chronic nephritis. In none of these are attacks of gout common.

One of the clinical findings in long-standing cases is the appearance of deposits of urates in articular, peri-articular and subcutaneous tissues, and in bursae—most often upon the helix or antihelix of the ear and less commonly in the olecranon and prepatellar bursae and in the tendons of the fingers, wrists, toes, ankles, and heels. They may break down and ulcerate, discharging a chalky material—needle-like crystals of monosodium biurate. Tophi

can also be identified chemically by the old murexide test.

There is a moderate leucocytosis during an attack, and unless this is recognized it may raise difficulties when a septic condition of the joint is suspected.

The history and clinical findings form the basis for a diagnosis of gout and are more important than any laboratory investigations. A raised level of uric acid in the blood or serum will support a diagnosis, but a normal result does not exclude it. The severity of an attack can be better judged by the physical appearance and the degree of pain than by chemical data.

Oswald Savage, *British Med. J.*, No. 4851; 1424, 1953.

Breast Palpation

Most of the study of a breast lump is done by palpation. This should be carried out in different postures. There is an old saying that the cancerous lump is "best felt with the flat of the hand against the chest wall." It is true that certain cancers can be felt surprisingly well by this method. The breasts should be studied with the finger tips against the chest wall, the flat of the fingers against the chest wall, the flat of the hand against the chest wall, between the thumb and fingers of one hand, and between the fingers of both hands, pressing from above downwards and from side to side. Each quadrant should be studied in turn, not overlooking the central portion of the breast beneath the areola. This is often very difficult to feel.

Some say that the value of feeling the lesion with the flat of the hand against the chest wall is that in feeling with the fingertips one feels "too much." It would seem more correct to feel everything one can feel and cultivate powers of discrimination about what is felt.

Pullen's *Medical Diagnosis*.

Every General Practitioner Should be on the Lookout for Glaucoma

The glaucomas are a group of diseases which have in common the feature of elevated intraocular pressure. The older the patient, the more likely he is to have glaucoma. It is rare before the age of 35. Glaucoma may be primary or secondary. This discussion will be confined to the much more common primary, acute or chronic.

The loss of vision is due, primarily, to damage from pressure upon the optic nerve and retina. Besides tension elevated to perhaps 35 mm. the first sign is loss of peripheral vision. Taking the tension with the tonometer is essential. The ophthalmologist takes tactile tension on practically every patient he sees. If there is the slightest doubt it must be checked by the tonometer.

The most favorable cases are those found in the course of routine eye examination. Usually the patient comes in merely asking for a change in glasses. The pressure is found elevated. Visual field changes, if any, are minimal. This is one strong reason for advising the patient over 40 to have a thorough eye examination at least every 2 years and in some cases every year, whether he has any symptoms or not. Far too many patients with chronic glaucoma do not reach the ophthalmologist until the vision of one eye is totally gone and that of the other seriously impaired.

Occasionally one sees a patient who is blind in both eyes, and who was thinking that he probably had cataract which could be cured by surgery whenever he got up courage to have it done. Often the patient will tell you that he has had his glasses changed in the past year or two by a non-medical refractionist. The use of a tonometer is essential to diagnose early chronic glaucoma.



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Clinical results¹: Abolished vomiting in 40 of 41 gravid women, eliminated nausea in 30 of 41. Less than 3% side effects. **Dosage**: 1 or 2 tablets, at bedtime. Larger doses if necessary. **Supplied**: Bottles of 25, prescription only. Each Bonadoxin Tablet contains 25 mg. meclizine hydrochloride, 50 mg. pyridoxine hydrochloride.

1. Garrett, T. A.: Personal communication.

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Any patient, particularly 40 or over who complains of seeing haloes around lights, intermittent blurring of vision, failing vision, loss of peripheral vision and any other vague complaints about his seeing, should have a comprehensive eye examination.

Another type of primary glaucoma is the congenital. In the infant or young child, the coats of the eye are elastic. Stretching may result in great enlargement of the cornea or whole eyeball. Congenital glaucoma requires early treatment—very difficult and often unsuccessful. The physician may discover these cases because of steaminess of the cornea or enlargement of the eye, or poor vision.

Glaucoma is a serious cause of blindness. It is usually insidious and the damage done is permanent. Early institution of treatment can prevent much of this tragic blindness.

L.D. Lide, Jr., *Jl S.C. Med. Asso.* 50:71, 1954.

X-Ray Diagnosis of Pulmonary Tumors

Few cases of bronchogenic carcinoma are curable when discovered. It is the duty of the radiologist to maintain an active suspicion when any abnormality in the lung fields is encountered. An overzealous examiner can find something to worry about in almost every chest film. 3 of 4 bronchogenic carcinoma arise in the major bronchi, and the first signs that they will produce will be those due to partial obstruction of the bronchus. The tumor itself will not be visible.

All patients with consolidation of the lung should be followed until there is complete resolution of the process. Too often a patient is seen with what is clinically and roentgenologically an ordinary pneumonia; he responds satisfactorily to

therapy, is dismissed with incomplete resolution of the consolidation, and returns weeks or months later with obvious carcinoma, the lesion that precipitated the original infection.

While the survey PA film of the chest has suggested the presence of many of these early asymptomatic lesions, and the most elaborate radiographic studies have failed to reveal some with hemoptysis, positive cytological smears and metastases, the PA chest film is only a start in case finding, and it is inadequate when there is clinical suspicion of pulmonary disease.

The peripheral tumor is the one most likely to be uncovered in a routine survey. These lesions can be and are mistaken for every possible lung disorder. Surgeons are justified in decrying delays of weeks and months while the progress of the lesion is being charted by x-ray after x-ray, but they must not object to a delay of 2 or 3 weeks during which time many of the suspicious lesions they never see undergo complete resolution.

Near the hilum we encounter many lesions that are extremely difficult to classify.

Neurofibromas most often arise in the posterior mediastinum, but they may spring from the intercostal nerves at any point. Even when we can make a probable diagnosis of neurofibroma there is no way we can assure the patient that it is not malignant. The same is true of dermoids and many other forms of tumors. The final diagnosis rests with the pathologist, but any of the benign tumors may suddenly display malignant features, and the radiologist has done his part when he has demonstrated the presence and location of such tumors.

Harold Pettit, M.D., *Jl Sou. Caro. Med. Asso.*, 1954.

The Use of Silicones to Protect the Skin

An ointment containing silicone fluid which forms a protective coating on the skin was used in the treatment of various dermatologic conditions. The silicone fluids meet a need, long felt by dermatologists, for a preparation that will protect against soaps, industrial chemicals and other allergens.

Silicote ointment has no curative power. It simply protects the skin and permits healing to progress. Patients in this series were instructed not to use the ointment constantly once healing had occurred, but to apply it only before they were to come in contact with offending agents. Many of the patients, having the protection of Silicote, were able to discontinue wearing cotton-lined rubber gloves and to omit other pre-

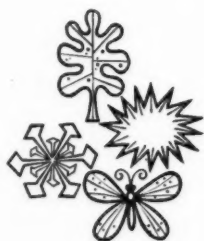
cautionary measures that formerly were more or less routinely prescribed in the management of the diseases with which they were afflicted.

As Silicote causes temporary burning sensation in the eyes if it comes in contact with them, it should not be applied to the eyelids. The ointment should not be applied to "weeping" areas of skin. In such conditions conventional treatment should be carried out and Silicote used only to prevent recurrence.

An indication of the integrity of the protective coating formed by Silicote was the observation that to remove it from the skin required three or four scrubblings with soap and water.

Sensitivity to Silicote did not develop in any patient in a period of more than a year of observation.

Grant Morrow, *California Med.*, 80:21, Jan., 1954.



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Irritations and eruptions of the skin...



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
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Value of Electric-Shock Treatment of Outpatients

If electric shock for outpatients is successful it saves not only the expense of hospitalization, but also the loss of income from work. It avoids the stigma for the patient of being in a mental hospital, the loss of freedom, and the legal consequences, such as being deprived of a driver's license and being forced to remain in the State for a year after discharge.

If shock is considered advisable the patient is given a thorough physical examination, x-ray studies of the chest and spine, and an ECG. Each patient is seen by a psychiatrist before and after each treatment. The member of the family who calls for the patient to take him home is interviewed concerning the patient's progress between treatments.

In our 2-year experience, of 93 patients who were started on shock treatment, 9 (10%) broke treatment.

Of the 84 patients, 87% were considered improved. Complications

resulting from treatment occurred in 7½. Four of the 11 patients who failed to improve with outpatient treatment did improve with additional treatments with electric or insulin shock while hospitalized.

It is believed that such a program should be available in general hospitals and should be seriously considered before patients are admitted to mental hospitals.

R. R. Mezer, M.D., et al, *New England J of Med.* 250:721, 1954.

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The Dangers of Codeine Overdosage in Children

In the 3 cases described codeine had been used to relieve the cough of measles and had led to serious respiratory depression and convulsions. The cases illustrate the importance of the cough reflex in suspected cases of measles encephalitis and the similarity in symptoms of measles encephalitis and of codeine overdosage.

In 1883, Schroeder observed that codeine increases the spinal reflexes decidedly more than morphine, and is, therefore, more liable than morphine to produce convulsions. The cough in measles is a result of the catarrhal inflammation of the respiratory mucous membranes. Its importance in the pre-rash syndrome of cough, coryza, conjunctivitis and Koplik's spots is evident. The general feeling, however, is that once the

diagnosis of measles has been established, the usefulness of the cough abruptly ceases and it becomes merely a nuisance. In the senior author's experience in treating measles encephalitis, suppression of the cough reflex through involvement of the tractus solitarius indicated the approach of the encephalitis in 74% of his cases. Thus, in cases where the diagnosis of measles encephalitis is entertained, the presence of an intact cough reflex is of great import. The cough reflex may be an important clinical sign in poliomyelitis as well as in measles. Narcotics should be used only in the very few cases when the value of cough suppression outweighs its inherent dangers.

M. J. Fox & Earl Jochimsen, *Wisc. Med. J.*, 52: 487, 1953.

The best treatment for constipation

Chobile enables you to re-establish normal colonic function in chronic constipation—the common complaint in middle and advancing years. With Chobile you can break the vicious laxative habit.

Chobile contains necessary cholic acid conjugates which maintain water balance to prevent dehydration of the stool and favor normal peristalsis.

depends on proper dosage

Begin with 3 or 4 tabules with meals until a soft, putty-like stool is obtained. Reduce dosage accordingly. In severe cases, an enema should precede Chobile therapy.

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A new preparation for adjunctive, wet-dressing treatment of many dermatoses comes "perhaps . . . closer than any other agent to having all the qualities desired" of such a substance.

Of the 170 patients treated, 148 had "decided improvement." Cases included neurodermatitis-atopic eczema, infantile eczema, contact and seborrheic dermatoses, anal and genital pruritus, and various other exudative conditions. Factors considered in the evaluation were control of exudation, control of pruritus, control of secondary infection, and effect on healing. No evidence of skin sensitivity to the preparation was noted in any case.

The preparation used (Prophyl-in®) was a powder—99.75% sodium propionate and 0.25% sodium copper chlorophyllin. Packages contain 2.3 gm. of the powder. Dissolve one powder in a pint of warm water, wet a turkish face cloth, hand or bath towel, wring so that it is not drippy, apply the wet cloth to the affected area and cover with sheet plastic, wax paper, or oiled silk. Leave in place for 2 hours, then remove and repeat the process. The solution is freshly prepared daily, fresh toweling used with each change of compresses.

Dermatoses in an exudative stage only were treated.

R. O. Noojin, et als., *Amer. Prac. & Digest of Treatment*, 5:186, 1954.

Clinical Use of Reserpine (Serpasil) in Geriatrics

A study was devised whereby reserpine and placebo tablets of similar appearance were administered during alternate periods of observation to 26 elderly hypertensive patients. Neither patient nor nurse was informed of the nature of the drugs. Placebo tablets were labeled B and D; reserpine tablets, A and C. Each reserpine tablet contained 0.5 mg. of the drug.

The 26 were selected on b.p. readings above 150/90 for at least several months; 13 patients had previously been treated with hydralazine several months prior. These patients' medical condition varied from good to poor. All ate the same regular diet and followed the same daily regimen of living during the entire period of observation. 11 patients were considered to have essential hypertension, 3 of these had previous cerebrovascular hemorrhages.

The usual initial daily dose of reserpine was 0.5 mg.—a.m. and late p.m. Some patients received as much as 1.5 mgm. twice daily. The period of reserpine adm. was usually 4 to 8 weeks, placebo tablets given for 4 weeks. Reserpine was restarted and then followed by placebo tablets so that during the entire period of observation each patient was studied during several alternate placebo and reserpine periods of therapy.

In a "double blind" study, the administration of reserpine to 26 elderly hypertensive patients with an

average age of 68 years lowered the systolic b.p. 8%, the diastolic b.p. 11%. During the control placebo periods, the average b.p. of this group was 193/99. With reserpine therapy, the average b.p. of the group fell to 178/88.

With reserpine, the average heart rate of the group decreased 10%, from 75 beats per min. during the control periods to 67 during the reserpine periods.

The sedative and tranquilizing effects of reserpine appear of value in reducing the emotional and mental tensions of geriatric patients.

Reserpine was found to be effective as a mild hypotensive agent capable of lowering the elevated b.p. of elderly patients gradually and safely without untoward reactions.

R. Harris, *Am. N.Y. Academy of Sciences*, 59:95, 1954.

The Effect of Cobalt-Iron Therapy in Iron-Deficiency Anemia in Infants

The independently discovered facts that the Vitamin B₁₂ molecule contains a cobalt particle and that certain animal anemias are, in fact, a cobalt deficiency led to the assumption, for a time, that cobalt exerted its hemopoietic effect through an in vivo synthesis of cyanocobalamin. Although this is true in certain animal species, it is not the case in man. It was shown that cobalt had no hemopoietic effect in any of the human *macrocytic* or *megaloblastic* anemias, but that its effects were pronounced in *hypochromic* anemias, in both man and animals.

The primary effect of cobalt, in therapeutic dosage, appears to be a specific stimulating action on the hemopoietic system.

The use of cobalt in the normochromic, normocytic anemias which accompany systemic infection has been shown to be effective, even in the anemia which accompanies chronic renal disease. In these condi-

tions iron reserves either are or may be made to be adequate and the problem is one of initiating or increasing the conversion of iron to hemoglobin.

We have recently reported the results of the administration of a cobalt-iron preparation to a group of 23 infants and children with well authenticated iron deficiency anemia. Because reliable data for iron appears in the literature, we did not feel it necessary to repeat such a "control series."

In our series of cases, cobalt proved to be a powerful stimulant to erythropoiesis, with an action similar to, but much more powerful than that of iron. This stimulating action, however, appears to be self-limiting. Thus, in several of our cases, increases to erythremic levels occurred but these gradually returned to normal values even though cobalt therapy was continued for periods up to 100 days. Iron, of course, sometimes causes a similar effect.

Half of our patients showed a significant increase in blood platelets during cobalt therapy, an increase in leucocytes.

With hemoglobin values below 50%, cobalt does not appear to increase the rate of formation of hemoglobin over that which can be expected from adequate iron therapy. Above this level cobalt seems to maintain a much more rapid rate of gain.

It has become popular to express hematologic improvement in terms of comparison with the results of blood transfusion. In our series, the average cell increase per week was $\frac{3}{4}$ million cells. and, for initial hemoglobin values below 9.5 gm. hemoglobin, 2 gm. per week—the same result as would the transfusion, in adults, of $1\frac{1}{2}$ pints of blood each week.

R. J. Rohn, et als., *Jour. Indiana Med. Asso.* 46: 1253, 1953.

Therapy of Pyodermas

Superficial pyogenic infections, such as impetigo, impetiginous dermatitis, folliculitis, paronychia, otitis externa, and secondary infections in scabies and pediculosis, occur often. Many a resistant pyoderma was improved by the internal administration of the sulfa drugs, but most of them were found to be skin sensitizers, and their use had to be abandoned.

Penicillin, followed by other antibiotics, brought more promise. In cases of deep-seated pyodermas, furunculosis, sycosis and carbuncles, penicillin injections materially aid the topical application of selected antibiotics.

For most superficial pyodermas, local applications of antibiotics are effective, in ointments with a water-soluble or petrolatum base. In liquid bases they lose their potency within a short time.

Livingood reports "essentially neomycin, aureomycin, terramycin, and bacitracin have replaced all other antibiotics in the local treatment of pyogenic infections . . . except for hemolytic streptococcus. In a few cases neomycin is preferred." Bacitracin, while effective only for gram-positive infections, has a low sensitizing index and is the best antibiotic for streptococcus infections.

"One is often confronted with mixed infections caused by both gram-positive and gram-negative organisms varying in their sensitivity to different drugs. Synergism between antibiotics, used simultaneously, results in an antibacterial effect greater than the anticipated simple additive result."

In all cases general cleanliness helps prevent the spread of the eruption. Debridement of the roofs of pustules and bullae and removal of crusts should precede topical applications.

Cultures were performed in only

a few of the cases because it is common knowledge that these superficial pyogenic infections are caused by hemolytic and nonhemolytic staphylococci and streptococci as well as gram-negative bacilli, especially *Bacillus pyocyaneus*.

Fifty cases of superficial pyodermas were treated locally with an ointment containing neomycin and bacitracin. Of these, 48 responded well, two were failures. Impetigo cleared in an average of 5 days, folliculitis in 7.6 days, and secondary infections complicating eczema in 8 days.

The average time required for a cure is about the same as for other antibiotics but is less than with the older remedies such as ammoniated mercury ointment. This ointment of neomycin and bacitracin, is more desirable because it effects a cure within the same time as other antibiotics, has a wider bacterial spectrum than others, and is rarely sensitizing.

Montgomery, R.M. & A.H. *New York State Jour. of Med.* 53: 19 83, 1953.

The Increased Antacid Effect of Aluminum Hydroxide Combined With Magnesium Trisilicate

A study covering the observations on 5 antacids—Hypercin, Pink Alkajel, Gelusil, Mag-Sal, and AMT—containing mixtures of aluminum hydroxide and magnesium trisilicate is reported.

The antacid study indicates that all of these substances had a better antacid effect than aluminum hydroxide alone. While there were slight differences between these substances in their antacid effect, all of them significantly decreased the gastric acidity.

Four tablets of Hypercin had a slightly better antacid effect than 2 tablets. Two tablets given at hourly intervals had a very good and most prolonged antacid effect.

S. Hyman, et al., *Amer. J. Dig. Dis.* 21:1, 1954.

The Likelihood of Recurrence of Congenital Malformations

Studies here and abroad have shown that one in every 65 newborn infants has a gross malformation. Birth certificate data have consistently underestimated the incidence. Thus, a recent report showed only an incidence of 1 in 5,000 for congenital heart disease, which is perhaps a 20-fold underestimate!

The two subjects — causation and likelihood of recurrence — are closely related. If causation of a particular defect is known, then the likelihood of recurrence, hereafter called "risk figure," can be readily determined. Thus, if a malformation is a clearcut hereditary trait, the pattern of inheritance can be used in the calculation of risk figures. For example, a dominant hereditary trait such as achondroplasia, if present in one parent, can be expected to occur in 50% of the children. If this trait is absent in parents, but present in one child, subsequent siblings will probably not have the

trait. If a recessive hereditary trait, such as the infantile type of polycystic renal disease, occurs in one child, it will appear in one of every 4 siblings born later. This infantile form of polycystic disease is not to be confused with the more frequent adult type which depends upon a dominant gene. Few malformations behave as clear-cut hereditary traits, even though heredity seems to influence the development of many of them. Some malformations, such as harelip, cleft palate, and club-foot behave as recessive traits in some families and as dominant traits in others. Therefore, knowledge of the individual family history in utilizing risk figures is important.

Widely quoted are the data reported by Murphy, who found that for siblings born after an infant whose gross malformation led to death, the risk of recurrence was 11%, and the recurrent malformation resembled the first malformation in half the cases.

R. C. Anderson, et al, *Jour-Lancet*, 74:175, 1954.

For the Aged and Senile Patient



ORAL *Metrazol*

— to help the geriatric patient with early or advanced signs of mental confusion attain a more optimistic outlook on life, to be more cooperative and alert, often with improvement in appetite and sleep pattern.

Metrazol, a centrally acting stimulant, increases respiratory and circulatory efficiency without over-excitation or hypertensive effect.

Dose: $1\frac{1}{2}$ to 3 grains, 1 or 2 teaspoonfuls Liquidum, or the tablets, every three or four hours.

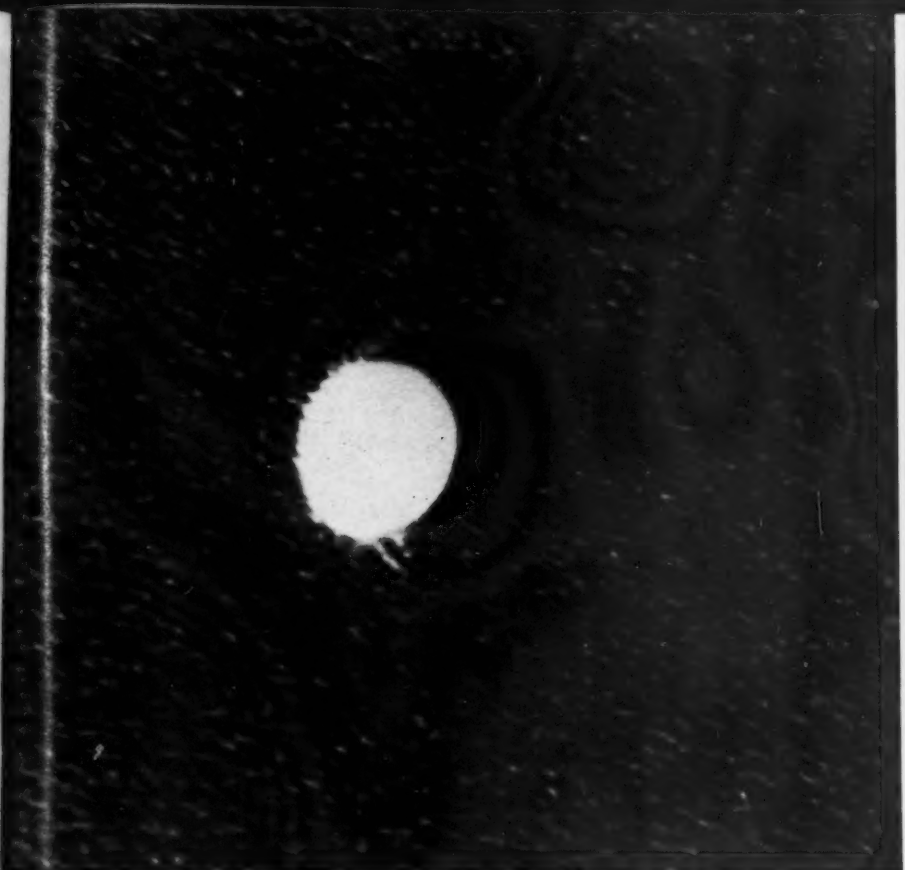
Metrazol tablets, $1\frac{1}{2}$ grs. (100 mg.) each. Metrazol Liquidum, a wine-like flavored 15 per cent alcoholic elixir containing 100 mg. Metrazol and 1 mg. thiamine HCl per teaspoonful.

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ELECTRON PHOTOMICROGRAPH

Staphylococcus aureus 35,000 X

Staphylococcus aureus (*Micrococcus pyogenes* var. *aureus*)
is a Gram-positive organism commonly involved in a great variety
of pathologic conditions, including
pyoderma • abscesses • empyema • otitis • sinusitis
septicemia • bronchopneumonia • bronchiectasis
tracheobronchitis • and food poisoning.

It is another of the more than 30 organisms susceptible to

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TETRADECYLINATE HYDROCHLORIDE

100 mg. and 250 mg. capsules

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Infectious Sore Throat

Streptococcal infections are ordinarily of the hemolytic or non-hemolytic type, streptococcus viridans rarely. Septic sore throat is uncommon nowadays due to the pasteurization of milk. It is a milk-borne, epidemic, streptococcal pharyngitis.

Peritonsillar abscess or quinsy is due to an acute tonsillitis occurring in a tonsil which had been previously infected with a crypt having been sealed off.

Retropharyngeal abscess is ordinarily of tuberculous origin, due to Pott's disease in adults, whereas in children it may be a complication of acute pharyngitis or tonsillitis.

Prior to incision and drainage of either a peritonsillar or retropharyngeal abscess is placing the patient in the Trendelenberg position. This, with the use of adequate pharyngeal suction, precludes any possibility of the aspiration of pus into the lung.

Diphtheria should always be suspected in case of a dirty grayish membrane over the tonsil, extending onto the soft palate. It causes destruction of the mucosa and bleeds when wiped off.

Vincent's angina is frequently seen as a jagged ulceration about the gums of patients who have a fetid breath. Less frequently the tonsils are involved. Usually the infection is unilateral. A grayish exudate occurs over the surface of one tonsil. The treatment is sodium

perborate or hydrogen peroxide gargles, penicillin daily or neoarsphenamine.

Syphilis of the throat should be considered in a sore throat lasting more than a week in which there is a unilateral indurated tonsil showing an ulcer, indicating presence of a chancre. Later the systemic symptoms develop and mucous patches over the oral and pharyngeal mucosa indicate secondary syphilis.

Agranulocytic angina due to a toxic depression of the bone marrow (usually sulfonamides or aminopyrine), causes necrotic lesions rapidly spreading over the entire oral and pharyngeal mucosa. It is diagnosed by depression of the entire blood count, especially the granulocytes. Treatment is immediate withdrawal of the causative drug, blood transfusions and IV Pentnucleotide daily.

Trush is a pharyngitis or stomatitis due to monilia characterized by whitish patches, usually causes bleeding on removal. Responds readily to local applications of 1-2% gentian violet (aqueous solution).

Herpes simplex is caused by a filterable virus and is characterized by small watery blisters on mucosal surfaces, when ruptured may coalesce and form shallow ulcers. Milder cases respond quickly to 10% silver nitrate. Elixir of Benadryl or Elixir of Pyribenzamine topically may give relief. Some cases

(Continued on page 903)

a FAVORED Menstrual Regulator

► Ergoapiol (Smith) with Savin contains all the active alkaloids of whole ergot, together with apiol (M.H.S. Special) and oil of savin in capsule form. One to two capsules, three to four times a day, help to promote menstrual regularity and greater comfort in many cases of functional amenorrhea, dysmenorrhea, menorrhagia and metrorrhagia. Supplied in ethical packages of 20 capsules. May we send literature?

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persist for months, new lesions forming as others disappear. Terramycin best antibiotic.

Stomatitis medicamentosa often due to local use of antibiotics (usually penicillin), whether in lozenge, dust or inhalation mist form. Ordinarily the symptoms are much more severe than the condition which was originally being treated. The entire oral and pharyngeal mucosa, especially the tongue, soft palate and uvula, become fiery red, markedly edematous and very painful. Diagnosis is made from the history. Treatment is withdrawal of the causative agent, antihistaminics and symptomatic medication.

One of the most common causes of sore throat is irritation of the posterior pharyngeal wall due to mucoid postnasal drip. Often such patients are given an antibiotic unnecessarily when they respond nicely to antihistaminics.

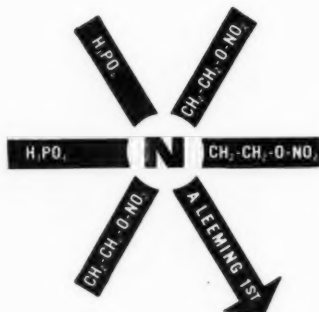
Antibiotic of choice may be determined by the type of bacteria in-

volved in the infection. Penicillin, Ilotycin, Aureomycin, Terramycin, or Chloromycetin, when used at all should be used in adequate dosage. Sulfonamides are also in order when they cover the kind of bacteria present. If any question exists as to the response to a given type of bacterium to an antibiotic, specific sensitivity tests will quickly reveal the answer beyond all doubt.

Valuable adjuncts: Bed rest, warm salt and soda ($\frac{1}{2}$ teaspoon of each to glass of warm water) gargle, aspirin 10 gr. q. 3 h., steam inhalations especially if a laryngitis and tracheo-bronchitis have developed. Warm saline irrigations are particularly helpful. Anesthetic lozenges (with or without bacitracin or tyrothricin or both) are helpful—used q. 3 h. Penicillin, Aureomycin, Terramycin, etc. are far too likely to cause local reaction to warrant their use.

J.B. Miller, *Northwest Med.* 53:140, 1954.

Angina pectoris prevention



The new strategy in angina pectoris is prevention, the new low-dose, long-acting drug—METAMINE. Most effective milligram for milligram, and better tolerated, METAMINE prevents attacks or greatly diminishes their number and severity. Dosage: 1 tablet (2 mg.) after each meal; 1-2 tablets at bedtime.

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Lysivane in the Treatment Of Parkinsonism

The drug was given in 50 mg. tablets, for the first week 1 tablet q. 6 h. If no serious side effects, increased to 50 mg. q. 4 h. The effect of the drug was then assessed and if it were effective the dose was gradually increased over the next fortnight to a maximum of 50 mg. q. 2 h. The daily number of tablets varied slightly according to the number of hours the patient slept—average daily number was eight. Increase beyond this number produced drowsiness and dry mouth and gave no further benefit. Any lessening of the dose did not control the symptoms adequately.

One hundred out-patients were taken at random from large numbers attending the clinic. Every effort was made to prevent them being influenced by suggestion. They had all been disappointed by other forms of treatment and they had no reason to think that these tablets would be any better than the other ones. Lysivane was given without comment, and after the dosage had been established and initial difficulties of treatment overcome, visits were made to the clinic at infrequent intervals.

After three years' experience with Lysivane, and five years' experience with other synthetic drugs credited with effectiveness in the control of Parkinsonism, I am convinced that the drug with the widest application at present at our disposal is Lysivane, and it should be given to all new cases of Parkinsonism until it is proved to be ineffective.

My results — 68% greatly improved.

R. O. Gillhespy, (*Edinburgh Medical Jour.* Vol. LX: 365, 1953).

LITERATURE SERVICE

Arrangements have been made to forward you the most recent literature available on the conditions listed below. Please indicate on the yellow self-mailer the information you desire by circling the appropriate number.

Allergies

- | | |
|----------------------|-------------|
| 1 allergic reactions | 5 eczema |
| 2 asthma | 6 food |
| 3 asthma (bronchial) | 7 hay fever |
| 4 drug sensitivities | 8 urticaria |

Blood, Cardiovascular

- | | |
|------------------------|-------------------------|
| 9 anemia | 18 coronary |
| 10 anemia (pernicious) | arteriosclerosis |
| 11 anticoagulant | 19 coronary |
| 12 arteriosclerotic | thrombosis |
| peripheral vascular | 20 chronic trenchfoot |
| disease | 21 dietetic restriction |
| 13 angina pectoris | 22 hypertension |
| 14 Buerger's disease | 23 myocardial failure |
| 15 cardiovascular | 24 myocardial |
| disorders | insufficiency |
| 16 congestive heart | 25 peripheral neuritis |
| failure | 26 Raynaud's disease |
| 17 cardiac asthma | 27 thromboangiitis |
| | obliterans |
| | 28 varicose veins |

Dermatology

- | | |
|---------------------|-----------------------|
| 29 acne | 35 eczema |
| 30 athlete's foot | 36 external ulcers |
| 31 bacterial derma- | 37 fungus diseases |
| tologic condition | 38 infections |
| 32 bed sores | 39 ivy dermatitis |
| 33 burns | 40 pruritus |
| 34 dermatoses | 41 topical infections |
| | 42 yaws |

Endocrinology

- | | |
|--------------------|--------------------|
| 43 adrenal gland | 48 hyperthyroidism |
| 44 cretinism | 49 myxedema |
| 45 diabetes | 50 pituitary gland |
| 46 exophthalmic | 51 thyroid gland |
| goiter | 52 thyrotoxicosis |
| 47 Graves' disease | |

Eye, Ear, Respiratory

- | | |
|---------------------|-----------------------|
| 53 bronchitis | 63 otologic |
| 54 choroiditis | dermatosis |
| 55 coughing | 64 pharyngitis |
| 56 eye infections | 65 respiratory |
| 57 ear infections | infections |
| 58 iritis | 66 sympathetic |
| 59 keratitis | ophthalmia |
| 60 laryngitis | 67 sinusitis |
| 61 nasal congestion | 68 tonsillitis |
| 62 night blindness | 69 uveitis |
| | 70 vasomotor rhinitis |

Gastrointestinal, Liver and Spleen

- | | |
|-----------------------|---------------------|
| 71 amebiasis | 78 gastrointestinal |
| 72 colitis | spasm (functional) |
| 73 constipation | 79 gastroduodenal |
| (chronic) | bleeding |
| 74 cirrhosis of liver | 80 peptic ulcer |
| 75 constipation | 81 staphylococcic |
| 76 diarrhea | infections |
| 77 gallbladder and | 82 streptococcic |
| bile ducts | infections |

Genito-Urinary

- | | |
|---------------------|----------------------|
| 83 bladder diseases | 88 ureteral diseases |
| 84 cystitis | 89 urinary tract |
| 85 kidney diseases | infections |
| 86 prostate gland | 90 urethral diseases |
| 87 pyelitis | |

Geriatrics

- | | |
|-----------------------|-----------------------|
| 91 anemia | 98 low blood sugar |
| 92 arteriosclerosis | level |
| 93 cardiac edema | 99 protein deficiency |
| 94 chronic fatigue | 100 senility (male) |
| 95 climacteric (male) | 101 senility (female) |
| 96 constipation | 102 vitamin |
| 97 insomnia | deficiencies |

Gynecology and Obstetrics

- | | |
|--------------------------|-----------------------------------|
| 103 amenorrhea | 111 leukorrhea |
| 104 cervicitis | 112 menopause |
| 105 climacteric (female) | 113 menometrorrhagia |
| 106 conception control | 114 pregnancy tests |
| 107 dysmenorrhea | 115 premenstrual disorders |
| 108 vaginitis | 116 postpartum bleeding |
| 109 habitual abortion | 117 pregnancy (nausea & vomiting) |
| 110 leukoplakia (vulvar) | |

Infectious Diseases

- | | |
|-----------------|----------------------------------|
| 118 brucellosis | 120 Rocky Mountain spotted fever |
| 119 pneumonia | 121 tuberculosis |

Neuromuscular

- | | |
|---------------------------|--|
| 122 analgesia | 127 neuralgia |
| 123 joint and muscle pain | 128 ischiatica |
| 124 muscle dysfunction | 128 neuritis, diabetic |
| 125 muscle spasm | 129 osseous and neuromuscular disturbances |
| 126 multiple sclerosis | 130 Parkinsonism |

Nutrition

- | | |
|------------------|--------------------------------|
| 131 anemia | 137 multi-vitamin deficiencies |
| 132 avitaminoses | |

- | |
|-----------------------------|
| 133 impaired fat metabolism |
| 134 malnutrition |
| 135 mineral deficiencies |
| 136 obesity |

- | |
|---------------------------|
| 138 pellagra |
| 139 protein deficiency |
| 140 vitamin deficiencies |
| 141 multiple deficiencies |

Pediatrics

- | | |
|-----------------------|---|
| 142 bowel habits | 146 formulas |
| 143 diarrhea | 147 infantile eczema, nutritional needs |
| 144 diaper dermatitis | 148 scurvy |
| 145 ear infections | |

Rheumatic and Arthritic Diseases

- | | |
|--------------------------|--------------------------|
| 149 arthritis | 154 rheumatic disease |
| 150 bursitis | 155 rheumatic fever |
| 151 gout | 156 rheumatoid arthritis |
| 152 gouty arthritis | |
| 153 musculoskeletal pain | |

Miscellaneous

- | | |
|------------------------------------|---------------------------|
| 157 alcoholism | 162 industrial dermatoses |
| 158 barbiturate poisoning | 163 meningitis |
| 159 debridement of necrotic tissue | 164 insomnia |
| 160 edema | 165 nervous tension |
| 161 edema (salt retention) | 166 psychoses |



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BOOK REVIEWS

MAYO CLINIC DIET MANUAL: *By The Committee on Dietetics of the Mayo Clinic, 247 pages. W.B. Saunders, Philadelphia. 1954. \$5.50*

This edition will continue to serve as a guide to doctors in ordering, and to dietitians in planning and serving, food for patients. A good many changes have been made in a number of dietary programs as required by advancement in knowledge of food requirements under various disease conditions.

DIGITAL PLETHYSMOGRAPHY, *by George E. Burch, M.D., F.A.C.P., Grune & Stratton, New York. 1954. \$5.00*

This monograph is devoted to recent experimental studies and the development of a new method for recording the rate of blood flow into and out of the digit of man; it will be of interest principally to workers in research laboratories.

NEW AND NON OFFICIAL REMEDIES, *Containing Descriptions of the articles which stand accepted by The Council on Pharmacy and Chemistry of the American Medical Association, January 1, 1954. Issued Under the Direction and Supervision of The Council on Pharmacy and Chemistry, American Medical Association. J. B. Lippincott, Philadelphia 5. 1954. \$2.65*

LECTURES ON GENERAL PATHOLOGY: *at the Sir William Dunn School of Pathology, University of Oxford; edited by Sir Howard Florey, Professor of Pathology. 773 pages, illustrated. W. B. Saunders Company. 1954. \$13.00*

Lately the old recognition of the principle that clinical medicine must have a sound grounding on pathology has been somewhat forced into the background. It is emphasized that these lectures do not form a complete survey of general pathology. For the most part they deal with subjects in which one or the other of the authors has had a special interest. They attempt to treat of some of the fundamental changes that take place in the body in response to injury, using this word in a broad sense, and to discuss some present-day views about the nature and causes of such changes. The hope is expressed that some readers will find sufficient stimulus to carry an experimental outlook into medicine and surgery.

A MANUAL OF TROPICAL MEDICINE: *By Thomas T. Mackie, M.D., Colonel, M.C. et al. Fort Sam Houston, Texas. 907 pages with 304 illustrations. W. B. Saunders, 1954. \$12.00*

Regret is expressed that the necessity for limiting the size of this volume has required the exclusion of bibliographies. This will not be counted a fault by practicing physicians who constitute the vast majority of the readers of this journal. The book contains everything that a clinician will need to know about tropical diseases, of which he will continue to see a considerable number as our soldiers return from the wars, and our globe-trotters from their travels.

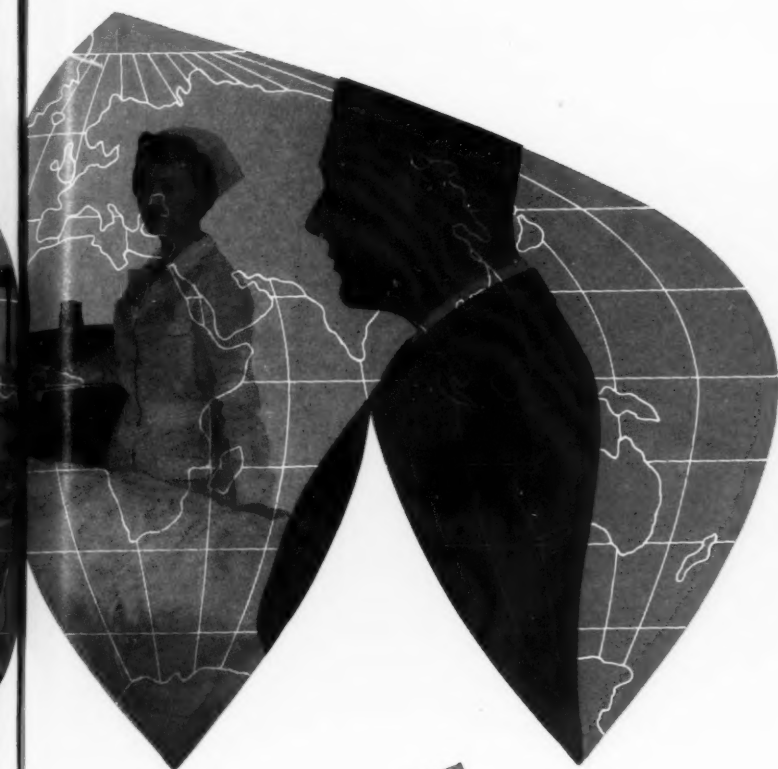
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DIVISION, CHAS. PFIZER & CO., INC.

Rudolf Hess, M.D., Professor of Physiology, Emeritus University of Zurich, Switzerland. Grune & Stratton, New York. 1954. \$4.00

Of special interest and value to the teacher and research worker.

WHY WE BECOME DOCTORS: edited by Noah D. Fabricant, M.D., Grune & Stratton, New York. 1954. \$3.75

Most likely very few doctors know why they became doctors, and this applies to the doctors whose essays make up this volume. However, not many of us would find the contents of the book devoid of interest.

THE DOCTOR WRITES: edited by S. O. Waife, M.D., F.A.C.P., Grune & Stratton, New York. 1954. \$3.75

While sorting a large number of medical reprints into folders, the author found a group which he had enjoyed reading but which did not fall into any usual classification. Thinking that a collection of some of these unusual writings would be of interest to others caused him to produce this little book. Among the subjects of articles here reproduced are:

Sherlock Holmes as a Dermatologist, Medicine and the Bible, Teachers of Medicine, Showmanship in Medical Teaching, Pitfalls of Clinical Research, The Therapeutic Art, Caritas Medici.

This reviewer has read a good many of these articles and he can recommend them all as well worth the time required for their perusal.

PRACTICAL FLUID THERAPY IN PEDIATRICS, by Fontaine S. Hill, M.D., W. B. Saunders, 1954. \$6.00

The book is written to bring the bedside application of recent discoveries in fluid and electrolyte therapy up to the present. It is divided into three parts: basic considerations, diagnosis and treatment of clinical conditions and technical procedures. Only generally accepted facts and theories have been includ-

ed. Sick infants and children are more often in need of fluid therapy than are those in any other age group. This book tells the doctor how and when to give his patients the greatest benefit of this form of treatment.

MANUAL OF UROLOGY: by Alec W. Badenoch, M.A., M.D., Ch.M. F.R.C.S., Grune & Stratton, New York 16, 1954. \$15.75

The author was impressed with the need for a book containing the essentials of symptomatology, pathology, investigation, diagnosis and treatment in urology. The use of the word investigation instead of research appeals strongly to this reviewer. One of the objectives is to meet the needs of general surgeons, some who may be specializing in urology. Cognizance is taken of the fact that there are several good ways of treating some conditions, and in some instances more than one procedure is recommended, differentiation being made according to peculiarities of the individual case. The illustrations are many and excellent, the index adequate, and the whole work an excellent specimen of the bookmaker's art.

EMERGENCY TREATMENT AND MANAGEMENT, by Thos. Flint, Jr., M.D., W. B. Saunders, Philadelphia, 1954. \$5.75

These pages aim to present the treatment and management of the patient by the emergency physician from first examination until disposition for definitive treatment can be arranged. Divisions of the book are General Medical Principles and Procedures, (barbiturates to X-rays); Emergency Treatment of Specific Conditions (abdominal pain to war emergencies); and Administrative, Clerical and Medicolegal Procedures (birth certificates to unusual occurrence reports). An unusual and a useful book.

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Broad spectrum antibiotic in stable liquid form for oral use. *Indications:* pneumonia, bronchitis, and other respiratory infections; genito-urinary infections; meningitis; bacillary dysentery, venereal infections, and certain virus infections. *Dosage:* As determined by physician. *Supplied:* 30 cc. bottles. Each 5 cc. provides 250 mg. of Polycycline.

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Blue-coated, compressed tablets combining intrinsic factor concentrate—B₁₂ complex with iron, liver, and vitamins. *Indications:* in the treatment of anemias commonly associated with blood loss, pregnancy, infections, restricted diet, metabolic diseases, and old age. *Dosage:* As directed by physician. *Supplied:* bottles of 50 and 500 tablets.

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Combined penicillin and dihydrostreptomycin. *Indications:* mixed infections caused by Gram-positive and Gram-negative organisms susceptible to both penicillin and dihydrostreptomycin. Each dose contains: crystalline procaine penicillin G, 100,000 Units; and dihydrostreptomycin sulfate, 0.5 gm. *Dosage:* As determined by physician. *Supplied:* single dose vials prepared by addition of water for injection or sterile isotonic sodium chloride solution for parenteral use.

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Each cc contains Mersalyl U.S.P. (equivalent to 39.5 mg. mercury), 0.10 gm.; Theophylline - betaine (equivalent to 0.05 gm. theophylline U.S.P.) 0.109 gm. *Indications:* edema in congestive heart failure. *Dosage:* Direction of the physician. *Supplied:* Solution in 10 cc. vials, multiple dose.

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Microcrystalline form of chloramphenicol for suspension in aqueous solution for intramuscular injection. *Indications:* bacterial, viral, and rickettsial infections where oral medication is difficult. *Dosage:* As determined by physician. *Supplied:* 1.0 gm. Steri-Vials containing Chloromycetin in dry form.

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Chloral Hydrate

Chloral is inexpensive and readily available; it is extremely safe and nontoxic; it produces sleep in an extremely high percentage of cases without objectionable side-effects. Sleep produced is such that the patient may be readily aroused if necessary and can at that time function quite adequately; addiction and tolerance are unimportant.

It is available in capsules, effective and not unpleasant to take. It has been used in cardiac cases with excellent results and no ill effects.

Certain generalizations may be made: for sedation 4 grains 4 times a day. As soporific 15 grains (1 gm.) is effective, and 30 gr. (2 gm.) may be safely given. It is available by prescription in $\frac{1}{4}$ and $\frac{1}{2}$ gm. capsules. It may be prescribed in liquid form, made palatable with a number of syrups. Elixirs may be useful when rapid onset of action is desired. Trial on different types will convince the doctor of its value. There are only 2 reports on chloral hydrate poisoning, these old and questionable.

Besides lack of experience with it, the most prominent objection has been its disagreeable taste and the irritant effect upon the gastric mucosa. The latter is a safety factor, in that when an overdose is taken, vomiting usually expels the medication. In a large group it is best to disguise the unpleasant taste by the use of capsules. In therapeutic doses the gastric irritant effect is seldom noticed.

A barbiturate to older patients at night often produces enough disorientation and even stimulation to cause the patient to fall out of bed, wander around the ward, or frighten him with his inability to understand where he is and what is happening

Chloral seldom produces such reactions, and may be used safely in all age groups and in almost all groups of patients.

Chloral has a rapid onset of effect, no stimulating properties, induces a more normal sleep, and effects that last 2 to 4 h. The therapeutic dose has no harmful effects, and there is a large margin of safety between the effective dose and the toxic dose. It is inexpensive, even in capsule form, and readily available to the physician but not to the patient without prescription.

The drug is excellent for use in patients with head injuries where it is important that restlessness be controlled without profound changes in state of consciousness or in the physiologic functions. It does not potentiate or obscure the central nervous system symptoms present. It may be given over long periods of time without cumulative effect and without the production of addiction.

Because of its rapid onset and short duration it may be given to outpatients to be sent home soon after the effects of electric shock have worn off.

Spontaneous sleep records and chloral sleep EEG records recorded in the same patient do not differ.

F. J. Moore, *W. Va. Med. Jl.* 49: 292, 1953.

Frog Pregnancy Test

1. Speedy results; 1 to 4 hours.
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Sulfadiazine 0.083 Gm.
Sulfamerazine 0.083 Gm.
Sulfamethazine 0.083 Gm.

Supplied:

Protection-coated tablets
in bottles of 50 and 500.

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Upjohn

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Thorazine

(Smith, Kline & French)

Nonbarbiturate drug. *Indications:* nausea and vomiting and neuropsychiatric disorders. *Dosage:* As determined by physician. *Supplied:* 50 mg. ampuls. Tablets in 2 dosage strengths; 10 mg. and 25 mg.

Dylephrin

(Irwin, Neisler)

Each 100 cc. contains epinephrine hydrochloride 2.5% and atropine sulfate 0.5 gm. *Indications:* bronchial asthma and the bronchospastic type of pulmonary emphysema. *Administration:* hand-bulb nebulizer or with apparatus for continuous aerosolization, using mask or positive pressure hood. *Supplied:* Aerosol solution, bottles of 15 cc, 30 cc.

Expasmus

(M. H. Smith)

Antispasmodic analgesic. Each tablet contains dibenzyl succinate 125 mg., mephenesin 250 mg., salicylamide 100 mg. *Indications:* Spasms of skeletal and smooth muscles. *Dosage:* as directed by physician. *Supplied:* bottles of 100 tablets.

Ambrol

(Patch)

Each yellow uncoated tablet contains Secobarbital, 50 mg; Phenobarbital, 50 mg; Acetylsalicylic acid, 195 mg; Thiamine hydrochloride, 5 mg. *Indications:* headaches, neuralgias, sciatica, dysmenorrhea, insomnia, anxiety states. *Dosage:* adult dose, 1 tablet on retiring, daytime sedation $\frac{1}{2}$ to 1 tablet as directed by physician. *Supplied:* Bottles of 100.

Artamide

(Wampole)

Each white, coated tablet contains: Salicylamide, 0.25 Gm; Para-aminobenzoic acid, 0.25 Gm; Ascorbic acid, 20 mg; 'Oranidin' (organic iodine), 10 mg. *Indications:* rheumatoid arthritis, osteoarthritis, rheumatic fever, fibrositis, gout. *Dosage:* 2 tablets 3 or 4 times daily. *Supplied:* bottles of 100, 500.

Hemacalcin

(Harrower)

A prenatal hematinic. *Indications:* nutritional anemias of pregnancy. *Dosage:* 2 tablets 3 times daily. *Supplied:* bottles of 100 tablets.

Pentoxylon Tablets

(Riker)

Each tablet contains Rauwiloid, 1 mg., pentaerythritol tetranitrate 10 mg. *Indications:* angina pectoris and status anginosus. *Dosage:* 1 or 2 tablets 4 times daily. *Supplied:* bottles of 100 and 1,000 tablets.

Intribex Kapseals

(Parke, Davis)

Each Kapseal has intrinsic factor concentrate containing 7.5 mcg. vitamin B-12, to which has been added 200 mg. liver-stomach concentrate, 7.5 mcg. crystalline vitamin B-12, 1 mg. folic acid, 375 mg. ferrous sulfate, 75 mg. vitamin C. *Indications:* Anemia. *Dosage:* As determined by physician. *Supplied:* bottles of 100 and 500 Kapseals.

Achromycin Ear Solution

(Lederle)

For local application in external ear infections. *Indications:* for use in the treatment of acute and chronic infections. *Dosage:* As determined by physician. *Supplied:* Each package consists of one 50 mg. vial Tetracycline HCl and one 10 cc. vial of diluent containing 5% benzocaine in propylene glycol.

Neosporin

(Burroughs Wellcome)

A combination of 3 antibiotic-bactericidal agents in a low-melting point petrolatum base; each gm. containing 'Aerosporin' sulfate polymyxin B sulfate 5000 units, bacitracin 400 units, neomycin sulfate 5 mg. *Indications:* lesions, infected or likely to become infected by bacteria, and accessible to topical therapy. *Administration:* apply every 3 or 4 hours over affected area. *Supplied:* $\frac{1}{2}$ oz. tubes with applicator tip.

Local Therapy of Chronic Non-rheumatoid Arthritis and Rheumatism

Therapy consists of weekly injections of a 5% solution of camphor and salicylates in oil. The dosage varies with the severity. Frequently, less than 6 treatments suffice; rarely, more than 6 are needed. Mapping of the rheumatic geography must be exact and complete. Patients cannot be entirely relieved if a single lesion is overlooked. Malaise and fever may follow the initial treatments, but the effects soon pass. Pain, if any, can be controlled easily with simple analgesics.

In cases of rheumatic fibrositis the injections are made deep into the tissues, so that medication spreads over the periosteum, close to the bony origin of the affected muscles.

With a long-enough 19-gauge needle, each fibrositic lesion must be treated separately, as many at one time as the patient can tolerate. Accurate surface marking for determining the site of injections in relation to the signs and symptoms determines the results. With rheumatic sciatica infections are made deep, into the gluteal muscles, to directly into the periosteum of the sciatic notch. A line is drawn between the top of the greater trochanter and tuberosity of the ischium, the injections made at the junction of the inner and middle thirds of that line. At the same time, an injection is made to the transverse process of the 4th and 5th lumbar vertebrae of the affected side.

With brachial neuritis, find the
(Continued on next page)

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point of severest pain upon pressure on either side of the cervical vertebrae, make injections $\frac{1}{2}$ in. from the median line directly into the deep tissues as far as the bony structures.

With intercostal neuralgia, locate the point of greatest pain and inject into the muscle down to the periosteum of the corresponding rib, care being taken not to puncture the pleura.

Osteoarthritis is treated by injections directly into the affected joint; in the knee on either side of the ligamentum patellae, the knee being flexed to as nearly 90° as possible; in the shoulder joint from the front, $\frac{1}{2}$ in. outside and $\frac{1}{2}$ in. below the coracoid process of the scapula, with the arm rotated outwardly.

In all instances, the injection of a local anesthetic should precede each treatment, except in the knee joint, where none is needed. Whenever mass injections are given, general anesthesia should be employed.

A finer needle is used when injecting smaller joints.

Local therapy of chronic arthritis and rheumatism with camphor and salicylates in oil is an effective treatment and an advance over existing methods. Emphasis is placed on the need for extreme accuracy in locating the rheumatic lesion before it is attacked.

The (Scott) technic shortens disability time, the patient rarely requiring more than 6 treatments, all of which can be administered by the physician in his office. Only such patients who have too many lesions for office treatment, or who desire quicker results through massive treatments, need hospital or nursing-home care.

Reactions consisted of malaise and fever, in some cases, which passed in 24 to 48 hours. Pain, if any, can easily be controlled by simple measures. No infections or complications were noted.

Joseph Boardman, M.D., New York, *J. Med. Soc. New Jersey*, July, 1954.

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